



State of New Jersey
Office of Emergency Management

NJ State Police Division Headquarters | P.O. Box 7068, West Trenton, NJ 08628

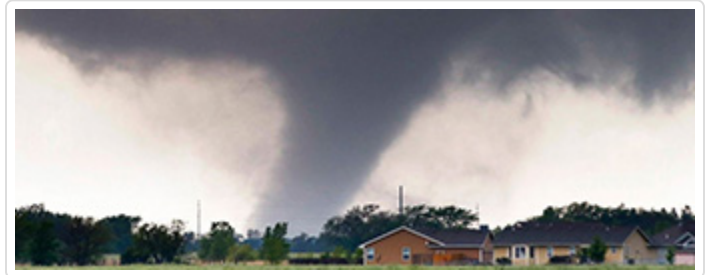
[Home](#) / [Plan & Prepare](#) / Tornadoes



Tornadoes

Plan & Prepare

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a severe thunderstorm, or sometimes as the result of a hurricane, and produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. The damage from a tornado is a result of its high wind velocity and wind-blown debris.



Tornado season is generally March through August, though tornadoes can occur at any time of year. They tend to occur in the afternoons and evenings. Over 80 percent of all tornadoes strike between noon and midnight.

What to do Before a Tornado



Basic Preparedness

- **Prepare yourself and your family** by creating an **Emergency Supply Kit** and a **Family Disaster Plan**. Visit our **Basic Preparedness page** for more details.
 - **Your Kit** includes items that will help you stay self-sufficient for up to three days, if needed.
 - **Your Plan** includes evacuation plans, a place to reunite with loved ones, and an out-of-state contact person.
- Track the weather with color-coded maps of New Jersey's real-time NWS weather forecasts:
 - [NWS Philly/Mount Holly Site](#)
 - [NWS NYC/Upton Site](#)
- **Stay Tuned:** Listen to [NOAA Weather Radio](#) or your local radio and television stations for weather updates, Storm Watches or Warnings, and emergency instructions from public safety Officials.

- **Remember:** A battery-powered radio is a vital part of your Emergency Supply Kit. You can also track current weather conditions with **links available on our Current Weather/Traffic Web page.**



Identify A Safe Place In Your Home

- Pick a safe place where family members can gather if a tornado is headed your way. It could be your basement or, if there is no basement, a center hallway, bathroom or closet on the lowest floor.

Keep this place uncluttered. Make sure it is located away from windows. Know where heavy objects rest on the floor above (pianos, refrigerators, waterbeds, etc) and do not go under them - they may fall through a weakened floor.
- Be ready to shelter yourself under sturdy protection, such as a heavy table or workbench, or cover yourself with a mattress or sleeping bag.
- If you are in a high-rise building you may not have time to go to the lowest floor! Pick a place in a hallway in the center of the building.
- Manufactured homes are particularly vulnerable. A manufactured home can turn easily during a tornado, even if you have tied down the unit. When a tornado warning is issued, take shelter in a building with a strong foundation. If shelter is not available, lie in a ditch or low-lying area a safe distance away from the unit.

Learn The Danger Signs

There is no substitute for watching the sky.

- Tornadoes sometimes have no visible funnel! An approaching cloud of debris can mark the location of a tornado even if no funnel is visible.
- Tornadoes may be accompanied by hail or heavy rain followed by either dead calm or a fast, intense wind shift. Many tornadoes are wrapped in heavy precipitation and can't be seen.
- There may be a loud, continuous roar or rumble that doesn't fade in a few seconds like thunder.
- Look for a persistent lowering of the cloud base.
- At night look for small, bright, blue-green to white flashes at ground level near a thunderstorm (as opposed to silvery lightning up in the clouds). These mean power lines are being snapped by a very strong wind, possibly a tornado.

Watches And Warnings

The National Weather Service will issue 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 in your home are located, and listen to the radio or television for updates or for instructions from public safety officials.

A **Tornado Warning** is issued when a tornado has been sighted or indicated by weather radar.

What to do During a Tornado



If At Home:

- Go at once to the safe place you have identified in your home - ideally a windowless, interior room, a storm cellar, basement or the lowest level of the building.
- Stay away from windows.
- Go to the center of the room - but be sure not to stay underneath any heavy objects (pianos, refrigerators, waterbeds, etc) on the floor above! Stay away from corners because they tend to attract debris.
- Get under a piece of sturdy furniture such as a workbench or heavy table or desk and hold on to it, or cover yourself with a mattress or sleeping bag.
- Use arms to protect head and neck.

If In A Manufactured Home:

- Get out and find shelter elsewhere.
- Take shelter in a building with a strong foundation.
- If shelter is not available, lie in a ditch or low-lying area a safe distance away from the unit.

If At Work Or School:

- Go to the basement or to an inside hallway at the lowest level.
- Avoid places with wide-span roofs such as auditoriums, cafeterias, large hallways or shopping malls.
- Get under a piece of sturdy furniture such as a workbench or heavy table or desk and hold onto it.
- Use arms to protect head and neck.

If Outdoors:

- If possible, get inside a building.
 - If shelter is not available or there is no time to get indoors, lie in a ditch or low-lying area or crouch near a strong building. Be aware of the potential for flooding.
 - Get as far away from trees and cars as you can.
 - Use arms to protect head and neck.
-

If In A Car:

- Never try to out drive a tornado in a car or truck! Tornadoes can change direction quickly and can lift up a car or truck and toss it through the air.
 - Get out of the car immediately and take shelter in a nearby building.
 - If there is no time to get indoors, get out of the car and lie in a ditch or low-lying area away from the vehicle. Be aware of the potential for flooding.
-

If In A Shopping Mall Or Large Store:

- Do not panic. Watch for others. Move as quickly as possible to an interior bathroom, storage room or other small enclosed area, away from windows. Crouch face-down and protect your head with your arms.
-

If In A Church Or Theater:

- Do not panic. If possible, move quickly but orderly to an interior bathroom or hallway, away from windows. Crouch face-down and protect your head with your arms.
- If there is no time to do that, get under seats or pews, protecting your head with your arms or hands.

What to do After a Tornado



After The Storm Passes

- Help injured or trapped persons. Give first aid when appropriate. Do not try to move the seriously injured unless they are in immediate danger of further injury.
- Check on neighbors who may require special assistance - infants, elderly people and people with disabilities. People who care for them or have large families may need additional assistance caring for several people in emergency situations.
- Continue listening to local radio or TV stations or a NOAA Weather Radio for updated information and instructions. Access may be limited to some parts of the community, or roads may be blocked.
- Call for help, if needed. Use the telephone only for emergency calls.
- Stay out of damaged buildings. Return home only when authorities say it is safe.
- Watch out for fallen power lines and report them immediately. Reporting potential hazards will get the utilities turned off as quickly as possible, preventing further hazard and injury.
- Do not use matches in a storm ravaged area until all gas lines are checked for leaks. Keep flashlights and plenty of batteries at hand.
- Clean up spilled medicines, bleaches, or gasoline or other flammable liquids.

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

Inspecting 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 main valve if you can and call the gas company from a neighbor's home. If you turn off the gas for any reason, it must be turned back on by a professional.
- Look for electrical system 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. If you have to step in water to get to the fuse box or circuit breaker, call an electrician first for advice!
- Check for sewage and water line damage. If you suspect sewage lines are damaged, avoid using toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap. You can obtain safe water by melting ice cubes.

Tornadoes: The Facts



A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a severe thunderstorm, or sometimes as the result of a hurricane, and produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. The damage from a tornado is a result of its high wind velocity and wind-blown debris.

Tornado season is generally March through August, though tornadoes can occur at any time of year. They tend to occur in the afternoons and evenings. Over 80 percent of all tornadoes strike between noon and midnight.

When a tornado threatens, individuals need a safe place to go and time to get there. Those most at risk are individuals in manufactured homes or automobiles.

Even with advances in meteorology, tornado warning times may be short or even impossible. Lives are saved when individuals receive and understand the warning, know what to do, and know the safest place to go.

The Fugita-Pearson Tornado Scale measures tornado strengths, from F-0 (weakest) to F-5:

- **F-0:** 40-72 mph, chimney damage, tree branches broken
- **F-1:** 73-112 mph, manufactured homes pushed off foundation or overturned
- **F-2:** 113-157 mph, considerable damage, manufactured homes demolished, trees uprooted
- **F-3:** 158-206 mph, roofs and walls torn down, trains overturned, cars thrown
- **F-4:** 207-260 mph, well-constructed walls leveled
- **F-5:** 261-318 mph, homes lifted off foundation and carried considerable distances, autos thrown as far as 100 meters

According to [The Tornado Project](#), only **about 1 percent** of all tornadoes from 1950-1994 were classified as "Violent" (F-4 and F-5). **About 25 percent** were classified as "Strong" (F-2 and F-3). The great majority, **about 74 percent**, were "Weak" (F-0 and F-1).

However, The Tornado Project reports that while "Violent" tornadoes occur less frequently, they cause a very high percentage of tornado-related deaths. "Violent" (F-4 and F-5) tornadoes caused 67 percent of tornado-related deaths from 1950-1994. "Strong" (F-2 and F-3) tornadoes caused 29 percent. "Weak" (F-0 and F-1) tornadoes caused only 4 percent.

Learn More



American Red Cross:

- [Tornado Safety Checklist](#) [pdf]
- [Tornado Safety Checklist - Spanish](#) [pdf]
- **Safe Living in Your Manufactured Home** (ARC 4465) gives fire, flood, and tornado safety information for people who live in manufactured homes.
- **Keeping Ahead of the Storm**, an 8-minute video developed by The Weather Channel and the American Red Cross for Project Safeside. Gives preparedness tips for tornadoes, floods, hurricanes, heat waves, and lightning.
- [Directory of local Red Cross chapters](#).

National Weather Service:

- [Thunderstorms ... Tornadoes ... Lightning, Nature's Most Violent Storms](#) [pdf]
A 16-page in-depth brochure that gives information on thunderstorms, tornadoes, and lightning, the science behind these phenomena, and how to stay safe.
- [Tornado Safety](#) With many links on lightning science, indoor and outdoor safety tips, medical facts, history, survivor stories, photos, teacher tools and more.
- [NWS Storm Prediction Center's Tornado FAQ](#)
- [Weather Safety](#)


FEMA:

- [Fact Sheet: Tornadoes](#)
- [FEMA for kids: Tornadoes](#)

Tornado Project Online:

- [Tornado Project Online Web site](#) 
-

Federal Alliance for Safe Homes (FLASH):

- [Tornado Safety](#)  with many links and videos on Strengthening Your Home, Safeguarding Your Family, and What to do After the Tornadoes.
-

Consumer Affairs:

- [Storm Shelter Guide](#) 

NJ Office of Emergency Management

[NJOEM Home](#)

[About Us](#)

[Plan & Prepare](#)

[How to Help](#)

[OEM Coordinators](#)

[Programs](#)

 [Facebook](#)

 [Twitter](#)

 [YouTube](#)

 [Instagram](#)

 [ReadyNJ Blog](#)

Departmental

[OAG Home](#)

[Contact OAG](#)

[About OAG](#)

[OAG News](#)

[OAG FAQs](#)

Statewide

[NJ Home](#)

[Services A to Z](#)

[Departments/Agencies](#)

[FAQs](#)

[Contact Us](#)

[Privacy Notice](#)

[Legal Statement & Disclaimers](#)

[Accessibility Statement](#)



Copyright © State of New Jersey, 2007-2023
New Jersey Office of Emergency Management