

TORNADOES

WHAT IS A TORNADO?

A tornado is a violent column of rotating air that extends from a thunderstorm to the ground. The most violent tornadoes have winds in excess of 250 mph. Most tornadoes are only 20 to 30 feet wide and only briefly touch the ground, however larger, more violent tornadoes may be up to a mile wide and create a line of destruction for miles. Although only 2% of all tornadoes are violent, these storms cause over 70% of tornado deaths.

HOW STRONG IS THAT TORNADO?

Tornadoes are rated by their strength on the Fujita Scale.

F-0 – Light damage. Chimneys are damaged, tree branches are broken, shallow-rooted trees are toppled.

F-1 – Moderate damage. Roofing tiles are peeled off, windows are broken, some trees are snapped, some mobile home damage, and utility buildings are destroyed.

F-2 – Considerable damage. Roof structures are damaged, mobile homes are destroyed, debris becomes airborne, and large trees are snapped or uprooted.

F-3 – Severe damage. Roofs and walls are torn from buildings, small buildings are destroyed, and most trees are uprooted.

F-4 – Devastating damage. Well-built homes are destroyed, some buildings are blown some distance, cars are blown some distance, and large debris becomes airborne.

F-5 – Incredible damage. Strong-frame homes are lifted from foundations, reinforced concrete structures are damaged, debris the size of automobiles becomes airborne, and trees are completely debarked.

TORNADO FACTS AND MYTHS

MYTH: You should leave some windows open during a tornado to protect the home from being destroyed by the increased pressure.

FACT: Most damage done by tornadoes is from high winds and flying debris, not by pressure. Opening a window will allow high winds into the house and may cause even more damage.

MYTH: Tornadoes only occur when it's raining.

FACT: Tornadoes can occur whether it's raining or not. Because of the large updraft associated with tornadoes, rain does not fall next to them. Rain may be sucked into rotation, making it difficult to see.

MYTH: You should always shelter from tornadoes in the southwest corner of a home.

FACT: Any corner of a home, on the lowest level away from windows, is as safe as any other corner.

MYTH: If you see a tornado while driving, turn and drive at right angles from the storm.

FACT: It is impossible to know what direction the tornado is moving. If you see a tornado while driving the best option is to find the closest sturdy building, and shelter inside on the lowest level, away from windows.



TORNADOES: BE PREPARED

While it's impossible to predict when or where a tornado will strike, you can be prepared. Plan your family's response to emergencies. Practice your plan. Seek shelter quickly when a tornado threatens. Preparation, along with quick and right action, will improve your chances of surviving during a disaster.

While highly destructive and potentially deadly, you can minimize the risk to life and property by being prepared for tornadoes.



Tornadoes are the most violent and destructive storms in nature. Generated inside powerful thunderstorms, they can destroy homes, businesses and lives in a matter of seconds. Tornadoes can strike in every state and in every type of terrain. Each year, severe weather produces over 1,000 tornadoes resulting in an average of 91 deaths and millions of dollars in property losses.

WATCH OR WARNING?

A TORNADO WATCH is issued when conditions that favor the occurrence of tornadoes are likely in your area within the next six hours or so. If your area is under a Tornado Watch, you need to be ready to enact your Family Disaster Plan to protect your family and property.

A TORNADO WARNING is issued when a tornado has already occurred, or when one is imminent in your area within the next thirty minutes to an hour. When under a Tornado Warning, take immediate action to protect yourself and your loved ones.



BEFORE THE STORM

When developing a Family Disaster Plan, consider the following:

- Learn about the risk of tornadoes. Contact local authorities for information about tornadoes in your area.
- Choose a tornado **Safe Room**. An underground storm shelter is the safest option. If your home has a basement, make that your Safe Room. If you don't have an underground shelter, choose an area on the lowest level, away from windows. Hallways or closets are good locations because smaller walls provide greater protection. Choose an interior location – try to place as many walls as possible between you and the outside.
- If you live in a high-rise building and you don't have time to get to the lowest floor, choose a location in the center of the building, in a hallway.
- If you live in a mobile home or other temporary structure, seek shelter in a nearby, sturdy building. Mobile homes are susceptible to the high-wind forces of tornadoes.
- Have access to tornado warning information. Many communities have public alert sirens. Consider the purchase of an NOAA weather radio with a tone-alert feature for updates on tornado watches and warnings.
- Practice tornado drills so everyone in your family knows what to do. Hold these drills at different times, and correct any problems that prevent family members from quickly and safely getting to the Safe Room.
- List all outdoor items that can be secured or brought inside in the event of bad weather.

Other ways to prepare:

- Trim or remove all tree limbs and shrubbery around your home. Weak limbs are often broken by strong winds and launched as missiles. Limit the danger by removing weak limbs and trees.
- Consider the installation of permanent storm shutters over windows.
- Consider having your tornado Safe Room additionally reinforced.
- Consider reinforcing garage doors. Garage doors are often blown in or damaged by flying debris, allowing high winds to enter a structure, potentially removing the roof and destroying the rest of the home.



DURING THE STORM

While under a **Tornado Watch**, listen to NOAA weather radio and local media for updated information. Stay alert for changes in weather conditions. Large hail, airborne debris or the sound of an approaching freight train may alert you to the presence of a tornado.

If you are in your home and under a **Tornado Warning**, you should:

- Listen to NOAA weather radio and other broadcasts for up-to-date information. Be sure to use a battery-powered radio in case the power goes out.
- If inside your home, go to your Safe Room. Protect yourself from glass and flying debris.
- Get low to the ground, under a sturdy piece of furniture, such as a table or workbench. Hold on to the object with one hand if tornado winds enter your Safe Room. Protect your head and neck from flying debris with the other hand.

If you are in a vehicle, trailer or mobile home and are under a Tornado Warning, you should get out at once and seek shelter in a sturdy structure, on the lowest level, away from windows.

If you are outside with no shelter and are under a Tornado Warning, you should:

- Lie flat in the nearest ditch or depression. Cover your head with your hands.
- Never seek shelter under an overpass or bridge.
- Never try to outrun a tornado... seek shelter!
- Watch out for flying debris. Airborne debris is responsible for most tornado related deaths and injuries.

AFTER THE STORM

- Continue monitoring local broadcasts for instructions.
- Lend a hand to neighbors who need special assistance. Do your best to help injured or trapped people. Apply first aid where necessary; however never attempt to move an injured person unless they are in additional danger.
- Be alert for downed power lines and broken gas mains. Report damage as soon as possible.
- Stay away from areas affected by the tornado. Let the rescue personnel do their job unhindered.
- If you evacuated, don't return to an affected area unless authorities say it's safe to do so.
- Do not enter damaged buildings unless you're certain they are structurally secure. If you do enter a damaged building, be careful and keep the following in mind:
 - Wear sturdy shoes and protective clothing.
 - Be sure to have battery-powered flashlights.
 - To make sure the building is safe from collapse, examine walls, floors, doors, stairs and windows.
 - Fire is the most common hazard after a disaster. Check for damaged gas and electrical lines and clean up any flammable liquids that may have spilled.
 - If you smell gas, open a window and exit the building at once. If you can turn off the gas main outside the building, do so. Otherwise, call the gas company from another location.
 - Check for electrical system damage. If you see sparks or broken and frayed wires, or smell burnt insulation, disconnect the power at the main breaker and call a licensed electrician.