



Tornadoes are unpredictable and can cause major damage and destruction in seconds. The extremely high winds, flying debris as well as the wreckage left behind can cause personal injury or possibly death. Although nothing can be done to prevent tornadoes, there are actions you can take to protect yourself and your family from the impact of a tornado.

## Before a Tornado

- **Know the warning signals.**
  - Learn about the tornado warning system for your county or locality.
  - Know how to distinguish the siren's warning for a tornado watch and a tornado warning.
- **Know the terminology.**
  - A **tornado WATCH** is issued when weather conditions favor the formation of tornadoes, for example, during a severe thunderstorm -- 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 take shelter immediately!
- **Monitor for tornadoes in your area.**
  - NOAA's National Weather Service  
<http://www.spc.noaa.gov/products/wwa/>
- **Identify an emergency shelter location in your home.**
  - The safest place is the interior part of a basement or storm cellar.
  - If there is no basement, use an inside room on the lowest floor (e.g., center hallway, bathroom, closet).
  - Avoid windows, skylights, or glass doors, which could be broken by strong winds or hail and cause damage or injury.
- **Have a family emergency plan. Discuss with your family:**
  - The best place to seek shelter from a tornado – in your home and other locations (e.g., outdoors, school, work, car).
  - How to protect themselves from flying/falling debris.
  - Possible disruption of services for extended periods of time (e.g., electric, phone and local food and water sources).
- **Prepare an emergency kit.**
  - This should include: 3-5 day supply of water (one gallon per person per day) and non-perishable food; don't forget a can opener for canned goods • One change of clothing and sturdy footwear per person • One blanket or sleeping bag per person • A first-aid kit, including prescription medicines • Battery-powered NOAA Weather Radio • Flashlight and plenty of extra batteries • A credit card or cash • Special items for infant, elderly, or disabled family members

## During a Tornado

- **Stay informed.**
  - Listen to the radio or television about the situation.
- **Gather your emergency supplies.**
- **If a WATCH is issued – Seek shelter immediately.**
- **At home.**
  - Go to your emergency shelter location – the interior part of a basement or inner room on the lowest floor.
  - For added protection, get under something sturdy, such as a heavy table or workbench.
  - If possible, cover your body with a blanket, sleeping bag, or mattress, and protect your head with anything available --even your hands.
  - Avoid taking shelter where there are heavy objects, such as pianos or refrigerators, on the area of floor directly above you; they could fall through the floor if the tornado strikes your house.
- **Mobile homes.**
  - **DO NOT STAY IN A MOBILE HOME DURING A TORNADO!**
  - Mobile homes, even if tied down, offer little protection - go to a nearby building, preferably one with a basement.
  - If there is no nearby shelter, lie flat in the nearest ditch, ravine, or culvert and shield your head with your hands.
- **On the road.**
  - **DO NOT TRY TO OUTFRAN A TORNADO IN YOUR CAR!**
  - The least desirable place to be during a tornado is in a motor vehicle; cars, buses, and trucks are easily tossed by tornado winds.
  - If you see a tornado, stop your vehicle and get out - lie flat in the nearest ditch, ravine, or culvert and shield your head with your hands.
  - Do not get under your vehicle.
  - Do not get under an overpass or bridge; you are safer in a low, flat location.
- **Outdoors.**
  - If you are caught outside during a tornado and there is no adequate shelter immediately available:
    - Lie flat in the nearest ditch, ravine, or culvert and shield your head with your hands.
    - Avoid areas with many trees.
    - Do not get under any vehicle, no matter what its size.

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## After a Tornado

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- **Stay safe.**
  - Stay away from tornado damaged areas.
  - Tornadoes often damage power lines, gas lines or electrical systems, so there is a risk of fire, electrocution or explosion.
- **Cleanup safely.**
  - Wear sturdy shoes or boots, long sleeves, and gloves to avoid injury.
  - Stay away from downed power lines and report them immediately.
  - Be aware of hazards that may cause injury to you or others cleaning up (e.g., chain saws, chemicals, exposed nails, broken glass).
  - Use caution with gas powered equipment – dangerous carbon monoxide can be generated; use in well ventilated areas.
  - Seek prompt medical attention if you suspect carbon monoxide poisoning – feeling dizzy, light-headed, or nauseated.
- **Seek medical attention for injuries as soon as possible.**
  - Injury may result from the direct impact of a tornado or it may occur afterward when people walk among debris and enter damaged buildings.
- **Protect your mental health.**
  - Effects may be immediate or delayed.
  - Maintain as much of a normal routine as possible.
  - Seek assistance if symptoms are prolonged (e.g., few weeks).

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Tornado damage to homes is devastating. While it is impossible to make a home tornado-proof, there are many steps you can take to protect your home.

## Before a Tornado

- **Determine the risk of tornadoes in your area.**
  - A map of high risk areas in the United States is available at [www.fema.gov/areyouready/tornadoes.shtm](http://www.fema.gov/areyouready/tornadoes.shtm)
  - The National Weather Service <http://www.weather.gov/>
- **Identify potential hazards on your property.**
  - When inspecting your home, pay particular attention to the windows, doors, roof, gables and connections (roof-to-wall, wall-to-foundation). Weaknesses in these elements of your home make it more vulnerable to significant damage.
  - Secure unstable materials that are outside your home (e.g., patio furniture, fuel tanks).
  - Remove dead or rotting trees and branches that could fall and cause injury or damage during a tornado.
  - Keep trees and shrubbery trimmed. Cut weak branches and trees that could fall on your house.
- **Protect your home.**
  - Place furniture so that chairs and beds are away from windows, mirrors, and picture frames.
  - Place heavy or large items on lower shelves.
  - Secure large appliances, especially your water heater, with flexible cable, or metal strapping.
  - Secure top-heavy, free-standing furniture (e.g., bookcases, china cabinets) that could topple to the wall, by using “L” brackets, corner brackets, or aluminum molding.
- **Safeguard your possessions.**
  - Create a room-by-room inventory of your possessions, include receipts and photos.
  - Gather copies of critical documents, such as finance records, insurance policies.
  - Keep these in a secure place (e.g., safe deposit box, waterproof container).

## During a Tornado

- **Stay informed.**
  - After moving to a safe location in your house, listen to the radio for further alerts and updates.
  - If there is time, move any large objects that could be a potential danger, out of the room.
  - Do not open windows. You won't save the house, as once thought, and may actually make things worse by giving wind and rain a chance to get inside.

## After a Tornado

- **Continue to monitor your battery-powered radio or television for emergency information.**
- **Assess the situation.**
  - Survey damage to the outside and inside of your home.
  - Identify sharp objects, dangerous materials, downed power lines, damaged gas lines, or other hazards (e.g., chemical spills).
  - Be aware of possible structural, electrical, or gas-leak hazards in your home – if you suspect any damage, shut off electrical power, natural gas, and propane tanks to avoid fire, electrocution, or explosions.
- **Account for your inventory.**
  - Compare the list with the one prepared prior to the incident.
  - Take photographs of all damage for insurance or emergency assistance purposes.
  - Report any property damage to your insurance agent or company representative immediately after a natural disaster and make temporary repairs to prevent further damage.
- **Cleanup safely.**
  - Wear sturdy shoes or boots, long sleeves, and gloves when handling or walking on or near debris.
  - Be aware of hazards that may cause injury to you or others cleaning up - these can include chain saw injuries, electrical or chemical hazards.
  - Do not touch downed power lines or objects in contact with downed lines. Report electrical hazards to the police and the utility company.
  - Use caution with gas powered equipment – dangerous carbon monoxide can be generated; use in well ventilated areas.

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Tornado situations will often produce anxiety, fear and a need to escape for some pets. Debris displaced by high winds, can cause injury to animals left outdoors. Take preparedness measures to protect and care for your pet during tornadoes.

## Preparing Pets for Tornadoes

- **Create an emergency supply kit for your pet, should you need to evacuate your home due to heavy destruction.**
  - A 3-5 day supply of food and water for your pet, bowls and a can opener.
  - Sanitation items, such as a litter box or puppy pads, and disposal equipment.
  - Crates to provide the animal with a secure and safe hiding spot; make sure that the crate is clearly labeled.
  - Leash and collar should you need to transport your pet, carrier for cats.
  - Any medications for the animal and all medical records for the animal.
- **Identification.**
  - All animals should have some sort of identification (collar with tag, microchip).
  - Take a photo of your pet and keep it with the medical records.
- **Prepare to seek shelter.**
  - Practice getting the entire family, including pets, to the tornado safe area during calm weather.
  - Train your dog to go to the area on command or to come to you on command regardless of distractions.
  - Learn how to quickly and safely secure your cat.
  - Know the hiding places of your pet and how to quickly and safely gather your pet.

## During a Tornado

- **Pet safety.**
  - Bring pets indoor well in advance of a storm.
  - NEVER leave animals tied up outside.
  - If they are frightened, reassure them and remain calm.
  - Animals should take the same cover that humans do during severe weather.
- **Put all pets in cages or carriers and in the safe room when a tornado warning is issued.**
  - Animals can sense bad weather and will look for a place to hide if they sense it is near.
- **NEVER leave your pet chained outside or enclosed in a manner in which they cannot escape danger.**

## After a Tornado

- **Pet behavior.**
  - Be aware that a pet's behavior may change before, during and after a disaster.
  - In the first few hours after the storm, leash your pets when they go outside until they readjust to the situation.
  - Familiar scents and landmarks may be altered and your pet may become confused and lost.
- **Pet safety.**
  - Keep your pet away from storm damaged areas.
  - Power lines could be down and dangerous objects will be littered about everywhere.
- **Lost pets.**
  - If pets cannot be found after a disaster, contact the local animal control office.
  - Bring along a picture of your pet, if possible.

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When tornadoes strike, businesses can suffer. A large percentage of tornadoes occur between 3 and 6 p.m., when most people are at work. Be prepared to protect your employees, customers and property, and ensure business continuity.

## Before a Tornado

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- **Monitor for severe thunderstorms in your area.**
  - NOAA's National Weather Service  
<http://www.spc.noaa.gov/products/wwa/>
- **Know the warning system for your community.**
  - Learn the thunderstorm warning system for your county or locality.
- **Know the terminology.**
  - A **tornado WATCH** is issued when weather conditions favor the formation of tornadoes, for example, during a severe thunderstorm -- 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 take shelter immediately!
- **Establish shelter locations on your property.**
  - The safest place is the interior part of a basement.
  - If there is no basement, use an inside room on the lowest floor (e.g., center hallway, closet).
  - Avoid windows, skylights, or glass doors, which could be broken by strong winds or hail.
  - There should be enough room for all employees, any customers or suppliers who may be at your business during the hazardous situation.
  - Stock the shelter with emergency supplies such as flashlights, battery powered radio, and a first aid kit.
- **Prepare and protect your employees**
  - Make sure everyone knows the location of storm shelter areas in the building; conduct annual emergency drills.
- **Make plans regarding customers.**
  - Determine the likelihood of customers being present if a severe storm situation.
  - Have an emergency plan for customers; review it with employees regularly.
  - Label shelter locations for the building.
- **Identify potential hazards on your property.**
  - Secure unstable materials that are outside your business (e.g., lumber, equipment, fuel tanks).
  - Remove dead or rotting trees and branches that could fall and cause injury or damage.

- **Protect your assets.**
  - Maintain an inventory of all equipment used by your business.
  - Develop a schedule for backing up all computer records.
  - Keep backups of all tax, accounting, payroll and production records, customer and supplier data off-site.
  - Keep copies of all paper and computer files in an accessible but off-site location.
- **Prepare for business continuity.**
  - Have a business emergency plan.
  - Document all processes that keep your business running.
  - Determine what processes and equipment is needed to keep your business open.
  - Store extra supplies offsite and make a plan for temporary relocation.
- **Obtain tornado insurance.**
  - Business insurance policies can cover damage to your business property and equipment.
  - Add extra coverage in case of business interruption following the disaster.
  - Extra expense coverage may pay for the costs of relocating or leasing equipment while repairs are underway.

## During a Tornado

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- **Stay informed.**
  - Listen to the radio or television about the situation.
- **If a WATCH is issued – Seek shelter immediately.**
- **Ensure employee and customer safety.**
  - Have personnel and customers go to the businesses' emergency shelter location immediately!
    - . Interior hallway areas
    - . Avoid glass walls and windows
    - . Avoid areas with wide-span roofs (e.g., warehouses)
  - Designate an employee to be the contact for employees and customers and to ensure they go to shelter locations.
  - Instruct individuals to sit facing the wall with their heads between their knees.
  - Keep exterior doors and windows closed and interior doors (offices to corridors) open to minimize pressures.
  - Do not use elevators for shelter; if the building loses power, you may become trapped.
  - If there is time, turn off all utilities at the main power switch and close the main gas valve.

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## After a Tornado

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- **Assess employees and customers for injuries.**
  - If someone has been injured, call 911 or your local Emergency Medical Services.
- **Assess your property.**
  - Survey the inside and outside of the building for structural damage, sharp objects, downed power lines, damaged gas lines, or other hazards (e.g. chemicals).
  - If re-entering a building, use extreme caution, as moving through debris presents further hazards.
  - Check machinery and equipment for damage.
  - Take photographs of all damage for insurance or emergency assistance purposes.
  - Contact your insurance agent to report any losses and obtain advice about restoration needs.
- **Clean up safely.**
  - During cleanup, personnel should wear sturdy shoes or boots, long sleeves, and gloves to protect their body from injury.
  - Stay away from downed power lines and report them immediately.
  - Be aware of hazards that may cause injury while cleaning up (e.g., chain saws, electrical or chemical hazards).
  - Use caution with gas powered equipment – dangerous carbon monoxide can be generated.

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Tornadoes strike quickly, with little or no warning. High winds can damage buildings, overturn vehicles, uproot or damage trees. Preparing before a tornado can help to preserve life, minimize damage and speed your recovery.

## Before a Tornado

- **Determine the risk of tornadoes in your area.**
  - A map of high risk areas is available at [www.fema.gov/areyouready/tornadoes.shtm](http://www.fema.gov/areyouready/tornadoes.shtm).
- **Know the terminology.**
  - A **tornado WATCH** is issued when weather conditions favor the formation of tornadoes, for example, during a severe thunderstorm -- 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 take shelter immediately!
- **Check weather reports before planning work activities.**
  - Have a way of receiving weather information while you work, especially at remote locations.
  - Monitor for tornadoes in your area at the National Weather Service Active Watch and Warnings. <http://www.weather.gov/>
- **Create an emergency plan of action.**
  - Know your area's warning signals for tornado watches and warnings. As soon as you hear the signal, take cover.
  - Carry a first aid kit, flashlight, and battery operated radio on all farm equipment.
  - Carry a cellular phone or portable radio to contact family or farm employees.
- **Develop a communication plan with your family and employees or co-workers.**
  - Know how to contact each other in the event of severe weather, especially if you are in separate locations.
  - Establish shelter locations on your property.
- **Identify potential hazards on your property.**
  - Secure structurally unstable materials (e.g. lumber, logs, equipment, fuel tanks), and loose equipment and materials (e.g., buckets, tools, etc.) which can become dangerous if airborne.
  - Fix loose siding, roofing, fence posts, etc., as these can become dangerous projectiles in high winds.
  - Know how to turn off electrical power, gas and water supplies for building on the farm.

- **Stockpile emergency materials.**
  - Plywood, lumber, nails, hammer, saw, pry bar
  - Wire and rope to secure objects
  - Fire extinguishers at all barns and in all vehicles
  - A safe supply of food to feed livestock
  - A gas-powered generator in case of power failure
- **Make a list of your farm inventory, include:**
  - Livestock (species, number of animals)
  - Crops (acres, type)
  - Machinery and equipment (make, model #)
  - Hazardous substances (e.g., pesticides, fertilizers, fuels, medicines, other chemicals)
- **Review your insurance coverage.**

## During a Tornado

- **Stay informed.**
  - Listen to the radio or television for situation developments.
- **If a WATCH is issued – Seek shelter immediately!**
- **Never try to outrun a tornado.**
  - Get off of farm machinery and get as far away from it as possible.
- **If possible, get inside a sturdy building.**
  - The safest place is an inside room on the lowest floor.
  - Avoid windows, or glass doors, which can be broken by strong winds or hail and cause damage or injury.
  - Avoid long span buildings as these are often supported solely by the outside walls and can be dangerous during severe weather situations.
  - For added protection, get under something sturdy, such as a heavy table or workbench.
  - If possible, cover your body with a blanket or sleeping bag; protect your head with anything available--even your hands.
- **If no adequate shelter immediately available,**
  - Lie flat in the nearest ditch or other low lying area.
  - Cover your head and neck with your arms.
  - Stay away from trees.
  - Do not get under any vehicle, no matter what its size.

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## After a Tornado

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- **Continue to monitor your battery-powered radio or television for emergency information.**
- **Assess the situation.**
  - Survey damage to your home, buildings, equipment, livestock and crops.
  - Identify sharp objects, dangerous materials, downed power lines, damaged gas lines, or other hazards (e.g., chemical spills).
  - Check for power outages.
- **Clean up safely.**
  - Wear sturdy shoes or boots, long sleeves, and gloves.
  - Be aware of hazards that may cause injury to you or others cleaning up - these can include chain saw injuries, electrical or chemical hazards.
  - Use caution with gas powered equipment – dangerous carbon monoxide can be generated; use in well ventilated areas.
- **Account for your inventory.**
  - Account for all livestock, fuels, chemicals, machinery and equipment; use the inventory list prepared prior to the incident.
  - Note any livestock losses.
  - Check machinery and equipment for damage.
  - Take photographs of all damage for insurance or emergency assistance purposes.
  - Report any hazardous materials (e.g., fuels, agricultural chemicals) spills or leaks to emergency response personnel.

- **Care for the livestock.**
  - Make sure that livestock have food and water.
  - Remove any debris that may cause injury.
  - Dispose of dead carcasses.
- **Farm disaster assistance.**
  - Disaster assistance for farms may be available from the USDA's Farm Service Agency <http://www.fsa.usda.gov/>.

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Livestock can become injured, displaced or die during tornado situations. Protecting your livestock from tornados involves the following measures.

## Before a Severe Storm

- **Maintain an inventory.**
  - Keep a current list of all animals on your farm; include their location and any records of ownership.
- **Have identification for all animals.**
  - Make sure animals have some form of permanent identification (e.g., ear tags, tattoos).
- **Have an emergency plan.**
  - Tornadoes can cause structural damage and power outages.
  - Have well maintained backup generators or alternate power sources for livestock production operations.
  - In the event of animal escape, have handling equipment (e.g., halters, nose leads) and safety and emergency items for your vehicles and trailers.
- **Ensure a safe environment.**
  - Assess the stability and safety of barns and other structures.
  - Remove loose objects from fields or livestock areas that may become potential flying debris.

## During a Severe Storm

- **Be aware animal behavior may change before, during and even after a disaster.**
- **Livestock sense tornadoes in advance.**
  - If your family or house is at risk, ignore livestock.
  - If your personal security isn't threatened, you may only have time to open routes of escape for your livestock.
- **Livestock safety.**
  - If possible, bring animals into a barn or shelter well in advance of a storm.
  - Make sure they have plenty of food and water.
  - Keep them away from areas with windows.
  - NEVER leave animals tied up or restrained outside.

## After a Severe Storm

- **Assess your animals and building structures.**
  - Survey damage to your barns and other structures; assess the stability and safety.
  - Examine your animals closely; contact your veterinarian if you observe injuries.
- **Cleanup safely.**
  - Gather and dispose of trash, limbs, wire, and damaged equipment that could harm livestock.
- **Provide non-contaminated feed or water.**
  - Provide clean, uncontaminated water.
  - Do not use any feed or forage that may have been contaminated by chemical or pesticides.
- **Animal disposal.**
  - Record any animal deaths.
  - Dispose of dead carcasses.
  - Check with your state or local authorities for proper disposal methods for animal carcasses.

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