

Michigan Developmental Disabilities Council



Emergency Preparedness

Information provided by the Weather Channel, the Center for Disease Control and Prevention, and the State of Michigan.

April 2010

Tornados and Severe Thunderstorms

Spring brings warm weather, and with it comes strong storms. The months of April through July are known as “Tornado Season,” with May and June being the peak months. This means that during this time period, the chance of severe thunderstorms and tornados is much higher. Tornados can and do occur in every state. Some tornado facts:

- Tornados can occur in close proximity to sunshine, or during very heavy rain
- Sometimes the air before a tornado can be eerily calm, in other cases strong, gusty winds are followed by a tornado.
- Large hail and tornadoes can be produced by the same thunderstorm; however, hail and thunderstorms do not always appear together.
- The sound of a tornado has been compared to a freight train or a jet engine, but there is no guarantee that you will hear such a noise before it’s too late.

It is important to remember that tornados can occur when you least expect it, and the characteristics of storms and tornados can be very different. The best way to protect yourself from a tornado or severe storm is to stay up to date on weather alerts, and to prepare yourself and your home in case severe weather occurs.

Please use this guide to help yourself prepare. A quick guide to weather alerts:

Severe thunderstorm watch: severe thunderstorms are possible in your area.

Severe thunderstorm warning: a severe thunderstorm has been confirmed and is occurring in your area.

Tornado Watch: when weather conditions favor the formation of tornadoes, for example, during a severe thunderstorm. During a watch, stay tuned to local radio and TV stations or a National Oceanographic and Atmospheric Administration (NOAA) Weather Radio for more information. Watch the weather and be prepared to take shelter immediately if conditions worsen.

Tornado warning: is issued when a tornado funnel is sighted or indicated by weather radar. Take shelter immediately.



Tornados and Severe Weather: Being Prepared

Important Measures to Take:

- Take some time with your family to develop a tornado emergency plan. Sketch a floor plan of where you live, or walk through each room and discuss where and how to take shelter.
- Show a second way to exit from each room or area.
- Make sure everyone understands the siren warning system, if there's such a system in your area.
- Mark where your first-aid kit and fire extinguishers are located.
- Mark where the utility switches or valves are located so they can be turned off, if time permits, in an emergency.
- Teach your family how to administer basic first aid, how to use a fire extinguisher, and how and when to turn off water, gas, and electricity in your home.
- Keep fresh batteries and a battery-powered radio or TV on hand.
- Learn the emergency dismissal policy for your child's school.

Disability Specific Preparedness Measures:

- Write down your specific needs, limitations, capabilities, and medications. Keep this list near you at all times, perhaps in your purse or wallet.
- Find someone nearby (a spouse, roommate, friend, neighbor, relative, or co-worker) who will agree to assist you in case of an emergency. Give him or her a copy of your list. You may also want to provide a spare key to your home, or directions to find a key.
- Keep aware of weather conditions through whatever means are accessible to you. Some options are closed captioning or scrolled warnings on TV, radio bulletins, or call-in weather information lines.

Practice your plan!

Conduct drills and ask questions to make sure your family remembers information on tornado safety, how to recognize hazardous weather conditions, and how to take shelter.



Being Prepared Continued

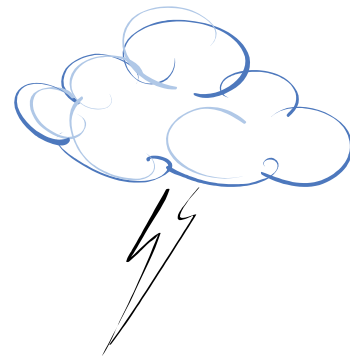
Write Down Important Information

- Telephone numbers, such as emergency (fire and police), paramedics, and medical centers
- Names, addresses, and phone numbers of your insurance agents, including policy types and numbers
- Phone numbers of the electric, gas, and water companies
- Names and phone numbers of neighbors
- Name and number of your landlord or property manager
- Important Medical Information (allergies, regular medications, etc)
- Year, model, license, and identification numbers of all vehicles (cars, boats, RVs, etc.)
- Bank or credit union's phone number and your account numbers
- Radio and TV broadcast stations to tune into for information

Storing Important Documents

Store the following documents in a fire and water-proof safe:

- Birth certificates
- Ownership certificates (cars, boats)
- Social security cards
- Insurance policies
- Will
- Household inventory—contents of household and serial numbers if possible; photographs of contents of every room (for insurance reasons); photographs of items of high value such as jewelry, paintings, and collection items.



First Aid Kit

Store your first aid supplies in a waterproof plastic container, such as a toolbox or fishing tackle box, so they will be easy to carry and protected from water. Some things to include in your kit: hydrogen peroxide, antibiotic ointment, wrapped alcohol swabs, aspirin and non-aspirin tablets, prescriptions and long-term medications, diarrhea medicine, eye drops, band aids, elastic bandages, rolled gauze, cotton-tipped swabs, adhesive tape roll, bar soap, tissues, sunscreen, paper cups, plastic bags, needle and thread, instant cold pack for sprains, sanitary napkins, pocket knife, safety pins.

Securing Your Home

Reducing Household Hazards: Use these suggestions to reduce the risk for injury during or after a tornado.

Inspect your home for possible hazards, including the following:

- Are walls securely bolted to the foundation?
- Are wall studs attached to the roof rafters with metal hurricane clips, not nails?
- Utilities—do you know where and how to shut off utilities at the main switches or valves?

Home Contents:

- Are chairs or beds near windows, mirrors, or large picture frames on the wall?
- Are heavy items stores on shelves more than 30” high?
- Are there large, unsecured items that might topple over or fall?
- Are poisons, solvents, or toxic materials stored safely?

Securing Your Homes Structure

No home is completely safe in a tornado, but attention to construction details can reduce damage and provide better protection for you and your family. If an inspection of your house using the suggestions above reveals a possible hazard, contact your local city or county building inspectors for more information on structural safety. They may also offer suggestions on finding a qualified contractor to do any needed work for you.

Shutting off Utilities

Gas: After a tornado, **DO NOT** use matches, lighters, or appliances, or operate light switches until you are sure there are no gas leaks. If you smell the odor of gas or if you notice a large consumption of gas being registered on the gas meter, shut off the gas immediately. Find the main shut-off valve located on a pipe next to the gas meter, and use a wrench to turn the valve to the “off” position.

Electricity: After a major disaster, shut off the electricity. Sparks from electrical switches could ignite leaking gas, and cause an explosion.

Water: Water can be turned off either at the main meter, or at the water main leading into the home. If you need emergency fresh water, it is better to shut off at the water main to conserve the water in your water heater.

Securing Your Home Continued

Arranging and Securing Household Items

- Arrange furniture so that chairs and beds are away from windows, mirrors, and picture frames.
- Place heavy or large items on lower shelves.
- Secure your large appliances, especially your water heater, with flexible cable, braided wire, or metal strapping.
- Identify top-heavy, free-standing furniture, such as bookcases and china cabinets, that could topple over.
- Secure your furniture by using one of two methods:
 1. “L” brackets, corner brackets, or aluminum molding to attach tall or top-heavy furniture to the wall.
 2. Eyebolts, to secure items located a short distance from the wall. Install sliding bolts or childproof latches on all cabinet doors. Store all hazardous materials such as poisons and solvents in a sturdy, locked cabinet in a well-ventilated area and away from emergency food or water supplies.

Be Informed

Determine what your insurance covers when it comes to damage done by tornados. In addition to high winds and rain, floods are sometimes associated with tornados but are not usually covered in regular homeowner’s insurance. The federal government insures against flood damage. Find out more from:

- Your homeowners insurance agent
- National Insurance Consumer Helpline (1-800-942-4242)
- The Insurance Information Institute (1-800-331-9146)
- The National Flood Insurance Program: www.floodsmart.gov, (1-888-379-9531)

Learn how your town handles emergencies by contacting:

- Your local American Red Cross Chapter
(<http://www.redcross.org/where/where.html>)
- Your local Emergency Management Agency (EMA)



During a Tornado

Signs of an approaching storm

Some tornados strike rapidly, without time for a tornado warning, and sometimes without a thunderstorm in the vicinity. When you are watching for tornados, it is important to know that you cannot depend on seeing a funnel. These signs may mean that a tornado is approaching:

- A dark or green-colored sky
- A large, dark, low-lying cloud
- Large hail
- A loud roar that sounds like a freight train

If you notice any of these weather conditions, take cover immediately, and keep tuned to local radio and TV stations or to a NOAA weather radio.

Sighting a funnel cloud

If you see a funnel cloud nearby, take shelter immediately. If you spot a tornado that is far away, help alert others by reporting it to the newsroom of a local TV or radio station. ***If you believe you are in danger, seek shelter immediately.***

Taking Shelter

At Home:

Pick a place in the home where you can gather if a tornado is headed your way. Always AVOID WINDOWS.

The safest place in the home is the interior part of a basement; if you don't have a basement, go to an inside room (near the middle of your home), without windows, on the lowest floor. This could be a center hallway, bathroom, or closet.

Get under something sturdy such as a heavy table or workbench. Cover yourself with a blanket, mattress, sleeping bag, or protect your head with your hands.

In a Mobile Home:

DO NOT STAY in a mobile home during a tornado. Mobile homes can turn over during strong winds. Mobile homes with a tie-down system cannot withstand the force of tornado winds.

Plan ahead: if you live in a mobile home, go to a nearby building, preferably one with a basement. If there is no shelter nearby, lie flat in the nearest ditch, ravine, or culvert and shield your head with your hands.

If you live in a tornado-prone area, encourage your mobile home neighborhood to build a tornado shelter.

Taking Shelter Continued

On the Road

The least desirable place to be during a tornado is in a motor vehicle. Cars, buses, and trucks are easily tossed by tornado winds.

Do not try to outrun a tornado in your car! If you see a tornado, stop your vehicle and get out. Do not get under your vehicle. Follow the directions for seeking shelter outdoors below.

Outdoors

If you are caught outdoors during a tornado and there is no adequate shelter immediately available:

- Avoid areas with many trees
- Avoid vehicles
- Lie down flat in a gully, ditch, or low spot in the ground
- Protect your head with an object or your arms.

Long-span buildings

A long-span building such as a shopping mall, theater, or gymnasium is dangerous because the roof structure is usually supported solely by the outside walls.

If you are in a long-span building during a tornado, stay away from windows and get to the lowest level of the building.

Long-span buildings continued

If there isn't time to get to a tornado shelter or a lower level, try to get under a door frame or against something that will support or deflect falling debris. For example, heavy shelving, counters, or under seats in a theater.

In all buildings

Always avoid windows and glass doorways. Go to the innermost part of the building, on the lowest floor. Do not use elevators because you may become trapped. Protect your head and make yourself as small as possible.

Shelter for people with disabilities

- If you use a wheelchair, get away from all windows and go to an interior room of the house. If possible, seek shelter under a sturdy table or desk. Cover your head with anything available, even your hands.
- If you are unable to move from a bed or chair and assistance is not available, protect yourself from falling objects by covering up with blankets and pillows.
- If you are outside and a tornado is approaching, get into a ditch or gully and lie flat if possible.
- Advance planning is especially important if you require assistance. Plan ahead!

After a Tornado

Injuries

Check for injuries. Do not attempt to move seriously injured people unless they are in immediate danger of further injury. Get medical assistance immediately. If someone has stopped breathing, begin CPR if you are trained to do so. Stop a bleeding injury by applying direct pressure to the wound. Have any puncture wound evaluated by a physician. If you are trapped, try to attract attention to your location.

General Safety Precautions

- Continue to monitor your radio or TV for emergency information
- Be careful when entering any structure that has been damaged
- Wear sturdy shoes or boots, long sleeves, and gloves when handling or walking on or near debris
- Be aware of hazards from exposed nails and broken glass.
- Do not touch downed power lines or objects in contact with downed lines. Report electrical hazards to the police and utility company.
- Use battery-powered lanterns rather than candles to light homes without power. Never leave a candle burning when you are not in the room.
- Try to stay off the telephone, except to report an emergency. It is important to keep lines open so that people who need help can receive it.
- Do not go into damaged areas unless you are requested for volunteer assistance by police, fire fighters, emergency management, and relief organizations.

Inspecting the Damage

- 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, explosions, or electrocution.
- If it is dark, use a flashlight to inspect your home, not a candle.
- If you see frayed wiring or sparks, or smell a burning odor, immediately shut off the electric system at the main circuit breaker.
- If you smell gas or suspect a leak, turn off the main gas valve, open all windows, and leave the house immediately. Notify the gas company, the police or fire departments, or the State Fire Marshal's office.

After a Tornado Continued

Safety During a Clean Up

- Wear sturdy shoes or boots, long sleeves, and gloves.
- Learn proper safety procedures and operating instructions before operating any gas-powered or electric-powered saws or tools.
- Clean up spilled medicines, drugs, flammable liquids, and other potentially hazardous materials.

More Resources

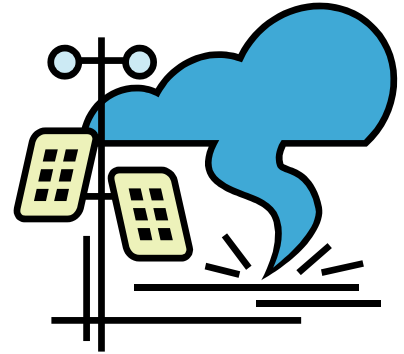
Online Resources:

<http://www.fema.gov/hazard/tornado/index.shtm>

<http://www.bt.cdc.gov/disasters/alldisasters.asp>

<http://www.nssl.noaa.gov/edu/safety/tornadoguide.html>

<http://www.redcross.org/www-files/Documents/pdf/Preparedness/checklists/Tornado.pdf>



Tornado Facts of Michigan:

- An average of 16 tornados occur in Michigan each year.
- In Michigan most tornados occur in April, May, June, and July between 3 PM and 7 PM
- The average tornado is grounded less than 10 minutes and travels about 5 miles. Extreme cases have been known to be grounded for an hour and travel more than 100 miles.

Information in this guide is from The Weather Channel (www.weatherchannel.com), the Centers for Disease Control Prevention Emergency Preparedness and Response (http://emergency.cdc.gov/), and the State of Michigan Website, www.michigan.gov.