April 2013

We have now entered the time of year when severe weather such as tornadoes is a great concern. Tornado season is considered to be the months of April through July, with May and June as the peak months (The Weather Channel and Centers for Disease Control and Prevention). Weather during this time of year can be very unpredictable, so knowledge and preparation are the keys to staying as safe as possible.

This issue of Health and Safety News is dedicated to providing an overview of safety precautions that should be taken before, during, and after a tornado. The information presented was taken directly from The Weather Channel (http://www.weather.com/safety/tornadoes/tornadoes-safety-before-20120330) and Center for Disease Control and Prevention (CDC) (http://www.cdc.gov/features/tornadosafety/). In order to learn more about any topic presented, please visit the website mentioned. Also, to read more about a topic in blue, simply right click and select Open Hyperlink.
BEFORE…

When & Where Are Tornadoes Most Likely?

In the U.S., the most active time of the year for tornado activity “commonly referred to as "tornado season" -- typically falls between April and July, with May and June usually the peak months. Many of those tornadoes strike in the region known as "tornado alley," which stretches across the Plains states from northern Texas to Nebraska.

Like the thunderstorms that spawn them, however, tornadoes are possible at any time of year and in any part of the country. Though in many cases advance warnings can be issued for tornadoes, it is important to be aware that tornadoes can change direction, speed and intensity very quickly.

Some tornado facts to keep in mind:

- Tornadoes usually accompany thunderstorms, but not always.
- Sometimes the air is calm before a tornado hits, while in other cases it is preceded by strong, gusty winds.
- A tornado may follow sunshine or be shrouded in heavy rain and large, dark, low-lying clouds.
- The sound of a tornado has been compared to a freight train or a jet engine, but you may or may not hear such a noise before a tornado strikes.

Protect Your Family and Home

Make a plan to prepare and protect the people and things you value before severe weather strikes:

- Make sure your family members know and understand the siren warning signals, if there is such a system in place in your area.
- Take photographs of your valuables and store them in a fire- and waterproof safe. Also use the safe to store important documents such as birth certificates, ownership documentation for cars and boats, Social Security cards, insurance policies and wills.
- Check your homeowner's insurance to confirm your coverage in case your home is damaged or destroyed. Tornadoes can be accompanied by heavy rains and flooding, which most homeowner's insurance policies do not cover. Check with your insurance agent or the National Flood Insurance Program for more information.
- Assemble a family disaster kit.
- Locate and mark where utility switches and valves are in your home so they can be turned off in an emergency if time allows.
- Depending on your location, you may be told to evacuate before a warning or even a watch is issued. Notify friends and/or family members who are unaffected by the storm of where you're going and why.
- Familiarize yourself with the emergency action plans at your school or workplace and identify the appropriate officials and emergency management agencies in your area, with contact information and phone numbers in case you need assistance after a storm.
- Make sure to charge your mobile phone, laptop and other mobile device batteries.
Stay Alert for Storms

To ensure you receive all of the latest weather updates during a severe thunderstorm, you'll need more than one reliable source of weather information. We recommend the following:

- Sign up for The Weather Channel Alerts for your mobile phone and/or e-mail. Receive all our alerts by signing up here.
- Purchase a NOAA Weather Radio, which broadcasts all of the latest weather updates as well as storm watches and warnings for your area. Learn more at the NOAA Weather Radio site.
- Make sure you have fresh batteries for your radio(s) and flashlights, in case your home loses power for an extended period of time
- Learn the difference between a severe thunderstorm watch and warning as well as a tornado watch and warning.

Family Preparedness Plan

Develop a disaster preparedness plan for your family that includes the following:

- A place to go if necessary when a tornado watch or warning is issued, depending on where you are “at home, school, work, or if you're outdoors or in your car.
- Plan for a friend or relative you've designated as your point of contact if you are separated from your family during a severe thunderstorm.
- Place where family members can meet if you're separated after a tornado strikes.
- Names and contact information for your insurance agents, including policy types and numbers.
- Telephone numbers for your utility providers, including gas, water and electricity.

Source: US Centers for Disease Control and Prevention.

Source: The Weather Channel.
If You're in a Building

- Make sure you have a portable radio, preferably a NOAA Weather Radio, for weather alerts and updates.
- Seek shelter in the lowest level of your home, such as a basement or storm cellar. If you don't have a basement, go to an inner hallway, a smaller inner room or a closet.
- Keep away from all windows and glass doorways.
- If you're in a building such as a church, hospital, school or office building, go to the innermost part of the building on the lowest floor. Do not use elevators because the power may fail, leaving you trapped.
- You can cushion yourself with a mattress, but don't cover yourself with one. Cover your head and eyes with a blanket or jacket to protect against flying debris and broken glass. Don't waste time moving mattresses around.
- Keep pets on a leash or in a crate or carrier.
- Stay inside until you're certain the storm has passed, as multiple tornadoes can emerge from the same storm.
- Do not leave a building to attempt to "escape" a tornado.

If You're Outside

- Try to get inside a building as quickly as possible and find a small, protected space away from windows.
- Avoid buildings with long-span roof areas such as a school gymnasium, arena or shopping mall, as these structures are usually supported only by outside walls. When hit by a tornado, buildings like these can collapse, because they cannot withstand the pressure of the storm.
- If you cannot find a place to go inside, crouch for protection next to a strong structure or lie flat in a ditch or other low-lying area. Cover your head and neck with your arms or a jacket, if you have one.

If You're in a Car

- If you can safely drive away from the tornado, do so.
- If there is a sturdy structure available, go inside.
- If no building is available, it might be better to pull over, stop the car (but leave it running so the airbags work), and crouch down below the windows. The airbags and frame of the car will offer some amount of protection, but certainly not absolute safety.
- A long-standing safety rule has been to get out of the car and into a ditch. If you do that, you should get far enough away from the car that it doesn’t tumble onto you. Being below the prevailing ground level may shield you from some of the tornado wind and flying debris, but there is still danger from those.
- Do NOT get out of a vehicle and climb up under the embankment of a bridge or overpass. This often increases your risk.

If You're in a Mobile Home

- Do not remain in a mobile home during a tornado. Even mobile homes equipped with tie-down systems cannot withstand the force of a tornado's winds.
- Heed all local watches and warnings, and leave your mobile home to seek shelter as quickly as possible before a tornado strikes, preferably in a nearby building with a basement.
• If no shelter is immediately available, find the lowest-lying area near you and lie down in it, covering your head with your hands.

**Know Your Terms**

Depending on the expected severity of a storm, the National Weather Service may issue one or more of the following:

• **Severe thunderstorm watch**: Conditions are conducive to the development of severe thunderstorms in and around the watch area. These storms produce hail of about ¾ inch in diameter and/or wind gusts of at least 58 mph.

• **Severe thunderstorm warning**: Issued when a severe thunderstorm has been observed by spotters or indicated on radar, and is occurring or imminent in the warning area. These warnings usually last for a period of 30 to 60 minutes.

• **Tornado watch**: Conditions are favorable for the development of severe thunderstorms and multiple tornadoes in and around the watch area. People in the affected areas are encouraged to be vigilant in preparation for severe weather.

• **Tornado warning**: Spotters have sighted a tornado or one has been indicated on radar, and is occurring or imminent in the warning area. When a tornado warning has been issued, people in the affected area are strongly encouraged to take cover immediately.

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Source: US Centers for Disease Control and Prevention.

Source: The Weather Channel.

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**AFTER…**

**Helping the Injured**
• Check those with you for injuries, and administer first aid for minor injuries as needed.
• Do not attempt to move a seriously injured person unless they are in immediate danger of additional injury. Get medical assistance as soon as possible by calling 911.
• If someone has stopped breathing, administer CPR if you have been trained to do so.
• Stop any bleeding by applying direct pressure, and have puncture wounds evaluated by a physician or emergency medical personnel.

Beware of Hazards

• Keep away from downed power lines and report them to your utility company.
• Stay out of damaged buildings and homes until local emergency management officials have indicated it is safe to go inside them.
• Watch for snakes or other animals that have been forced into your home by rising waters or flooding. Leave immediately if you smell fumes or gas, and notify emergency personnel.
• If your home has not been damaged, keep children and pets inside, away from any damage or debris outside. If you must take your pets outside, keep them on a leash to prevent them from running away and being injured by debris.
• If your home is without power, use battery-powered flashlights and lanterns rather than candles to prevent accidental fires.
• Cooperate fully with local public safety officials and respond to request for volunteer assistance by police, firefighters and relief organizations, but do not enter damaged areas unless specifically asked to do so.
• If you suspect any damage to your home, shut off electrical power, natural gas and propane tanks to avoid fire, electrocution or explosions.
• If you see frayed electrical wiring or sparks, or smell something burning, shut off your home's electrical system at the main circuit breaker, if you have not done so already.

Safety During Cleanup

• Wear sturdy shoes or boots, long sleeves and gloves whenever you handle, walk around or near debris. Many of the injuries caused by tornadoes result from stepping on nails in and around damaged homes and buildings.
• Clean up any dangerous spills immediately, including medicines, bleaches, chemicals, gasoline or other flammable liquids.

Assess the Psychological Impact

• After a storm passes, violent events like tornadoes can sometimes cause emotional and psychological trauma. Children, especially, may fear the storm will come back, or that it is punishment for real or imagined misdeeds.
• Talk with your children about your own past experiences in severe storms, or read a book with them about tornadoes.
• Encourage your children to express their feelings about what has happened. Listen carefully and show that you understand their fears.
• Include your children in the cleanup, if possible and if the affected area poses no danger, to give them a chance to see your household return to normal.
• If you or your family needs crisis counseling, contact your local American Red Cross chapter for information on speaking with a counselor.
Why Night Tornadoes Are Deadly

Becky Kellog weather.com

The only thing more frightening than the sight and sound of a tornado approaching is one that strikes while you're asleep. It comes in the middle of the night, enveloping your neighborhood with dangerous winds, swirling debris, and possibly deadly consequences.

Nocturnal tornadoes, as they are called, are like nightmares that have come to life. They strike under the cover of darkness and are often among the most deadly weather phenomenon.

"Nocturnal tornadoes are particularly dangerous for several reasons," says Tornado Expert Dr. Greg Forbes (find him on Facebook). "One is that it’s nearly impossible to see the tornado coming, so getting and heeding warnings is crucial. Another is that people are often asleep and caught unaware. People are usually at home, often in structures that are not as sturdy as their place of work. Mobile homes are particularly vulnerable."

As spring severe weather season kicks into high gear, night tornadoes are a great concern.

According to a study done by Northern Illinois University, the fatality rate from nocturnal tornadoes has actually increased in the past century, while the fatality rate from daytime tornadoes has decreased.
Researchers found that tornadoes during the overnight period are 2.5 times more likely to kill as those occurring during the daytime hours.

Nocturnal tornadoes catch people when they are more vulnerable and not taking precautionary measures like they do when they're awake.

"There have been many infamous nocturnal tornadoes," according to Dr. Forbes. "One struck Evansville, Ind., on Nov 6, 2005, nearly all of the fatalities in mobile homes. Deadly nocturnal tornadoes struck Florida on Feb 23, 1998, and Feb 2, 2007."

Other Deadly Nocturnal Tornadoes

- **Edgewater, Ala.**: April 8, 1998 / 32 fatalities
- **Riegelwood, N.C.**: November 15, 2005 / 8 fatalities
- **Greensburg, Kan.**: May 4, 2007 / 10 fatalities
- **Newbern, Tenn.**: April 2, 2006 / 16 fatalities

Dr. Forbes says the key to any severe weather event is to plan ahead.

"Be sure you know your safe location ahead of time so you can get there quickly, even if you have to get there in the middle of the night. Keep flashlights handy. Have a NOAA Weather Radio or subscribe to Notify! as a way to get tornado warnings at night."

![Tornado in Crete, Nebraska](iWitness weather user: tdawg_1)

Source: The Weather Channel.
Helmet and Tornado Statement

The Centers for Disease Control and Prevention (CDC) continues to recommend, as its first recommendation, that people in the path of a tornado find a shelter or a tornado-safe room. The safest place in the home is the interior part of a basement. If possible, get under something sturdy such as a heavy table or workbench. If outdoors, lie down in a gully or ditch.

We understand that people are looking for any useful and effective ways to protect themselves. We don’t have research on the effectiveness of helmet use to prevent head injuries during a tornado, but we do know that head injuries are common causes of death during tornadoes. CDC has long made the recommendation that people try to protect their heads. Because the time to react may be very short, if people choose to use helmets they should know where they are and have them readily accessible. Looking for a helmet in the few seconds before a tornado hits may delay you getting safely to shelter. If people choose to use helmets, these helmets should not be considered an alternative to seeking appropriate shelter. Rather, helmets should be considered just one part of their overall home tornado preparedness kit to avoid any delay.

CDC continues to promote protective measures for use during natural disasters including tornadoes.

Source: US Centers for Disease Control and Prevention.

Do you feel better prepared? If not, be sure to do more research!