**Tornado Survival** [JOSEPH ALTON MD](https://www.doomandbloom.net/author/dr-bones/)

**12
Dec**

In the wake of a series of off-season storms, a swarm of rare but off-season tornadoes may have killed more than 100 people. One managed to travel 200 miles before petering out.

There are few people who haven’t been in the path of a major storm at one point or another.  If the family medic fails to plan ways to protect their family, they may be confronted with significant traumatic injuries in the immediate aftermath.  Later, flooding may contaminate water supplies and cause exposure to serious infectious disease.

A tornado is a violently rotating column of air that is in contact with both the surface of the earth and the thunderstorm (sometimes called a “**supercell**”) that spawned it. From a distance, tornadoes usually appear in the form of a visible dark funnel with all sorts of flying debris in and around it.  Because of rainfall, they may be difficult to see when close up. A tornado (also called a “**twister**”) may have winds of up to 300 miles per hour, and can travel for a number of kilometers or miles before petering out.  They may be accompanied by hail and will emit a roaring sound that will remind you of a passing train (I can tell you this is true by personal experience).  There are almost a thousand tornadoes in the United States every year, more than are reported in any other country.  Most of these occur in Tornado Alley, an area that includes Texas, Oklahoma, Missouri, Kansas, Arkansas, and neighboring states.  Spring and early summer are the peak seasons.

Injuries from tornadoes usually come as a result of trauma from all the flying debris that is carried along with it.  Strong winds can carry large objects and fling them around in a manner that is hard to believe; Indeed, there is a report that, in 1931, an 83 ton train was lifted and thrown 80 feet from the tracks.

 Tornadoes are categorized by something called the**Fujita Scale**, from level 0-5, based on the amount of damage caused:

F0 Light: broken tree branches, mild structural damage, some uprooted

F1 Moderate: broken windows, small tree trunks broken, overturned mobile homes, destruction of carports or toolsheds, roof tiles missing.

F2 Considerable: mobile homes destroyed, major structural damage to frame homes due to flying debris, some large trees snapped in half or uprooted.

F3 Severe: Roofs torn from homes, small frame homes destroyed, most trees snapped and uprooted.

F4 Devastating: strong structure building damaged or destroyed or lifted from foundations, cars lifted and blown away, even large debris airborne.

F5 Incredible: larger building lifted from foundations, trees snapped, uprooted and debarked, multi-ton debris becomes airborne missiles

Although some places may have sirens or other methods of warning you of an approaching twister, it is important to have a plan for your family to weather the storm.  Having a plan **before** a tornado approach is the most likely way you will survive the event. Children should be taught where to find the medical kits and, if possible, how to turn off gas and electricity.  Giving your loved ones experience in the use of a fire extinguisher and the treatment of injuries would be highly useful as well.  Just use the search engine at [www.doomandbloom.net](http://www.doomandbloom.net/) for more information on treating wounds and fractures.

If you see a twister funnel, take shelter immediately. If your domicile is a mobile home, leave! They are especially vulnerable to damage from the winds.  If you live in a mobile home and there is time, get to the nearest building that has a tornado shelter; underground shelters are best.  If you live in Tornado Alley, consider putting together your own underground shelter.  Here’s a link on how:  <http://www.tornadoproject.com/safety/ism2.pdf>

Unlike bunkers and other structures built for long-term protection, a tornado shelter has to provide safety for a short period of time.  As such, it doesn’t have to be very large; 8-10 square feet per person would be acceptable.  Despite this, be sure to consider ventilation and the comfort or special needs of those using the shelter.

If you don’t have a shelter, find a place where family members can gather if a tornado is headed your way. Basements, bathrooms, closets or inside rooms without windows are the best options. Windows can easily shatter from impact due to flying debris. For added protection, get under a heavy object such as a sturdy table.  Covering up your body with a sleeping bag or mattress will provide an additional shield.  Discuss this plan of action with each and every member of your family or group in such a way that they will know this process by heart.

If you’re in a car and can drive to a shelter, do so. Although you may be hesitant to leave your vehicle, remember that they can be easily tossed around by the winds; you may be safer if there is a culvert or other area lower than the roadway. In town, leaving the car to enter a sturdy building is appropriate. If there is no other shelter, your car will protect you from some of the flying debris.  Keep your seat beat on, put you head down below the level of the windows, and cover yourself with something.

If you are caught outside when the tornado hits (on a hike, for instance), stay away from wooded areas.  Torn branches and other debris become missiles, so an open field or ditch may be safer. Lying down flat in a low spot in the ground will give you some protection.  Make sure to cover your head if at all possible, even if it’s just with your hands.

Armed with a plan of action, you will know what to do when you see that funnel cloud or hear that tornado siren.  Evaluate your home for weak and strong points, educate your loved ones on the right strategy, and you’ll have a head start on weathering that storm.

Joe Alton MD