

Severe Weather Awareness Week – Wednesday: Tornadoes

RUN TIME: 5 MIN 24 SECONDS

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STEFANIE: Well, Wednesday is the day during Severe Weather Awareness Week that we talk about tornadoes.

JEFF: Yes, we do.

STEFANIE: So, Jeff – advance planning for tornadoes is really key. So putting together your emergency communications plan and your emergency supply kit are really two important things you can do before a tornado watch is even on the horizon. Jeff, what are some of the danger signs for tornadoes? I mean, how do you know when a tornado might be coming?

JEFF: Well, that's kind of a big question in a sense. I mean, probably the first thing you'll do in this day and age to know a tornado's possible in your area is actually not seeing anything yet. I mean, it could be blue skies and sunny – it can be very volatile and change very quickly. I've seen it in the past where you go from a condition where you just get a storm developing to a large tornado causing damage within 20 minutes. Sometimes you can see these things coming from a distance – you know, you can track the storm approaching you – but other times it happens extremely fast.

STEFANIE: What should people do when a tornado has been spotted and a warning has been issued?

JEFF: Well, you should go to shelter. And at home, every Iowan should – and I have one in my home too – a safe place to go. Or at least have thought it through: If you're gonna have a tornado, where are you gonna go? It might sound simple, but if you haven't thought it through ahead of time, you're going to be kind of panicking and not knowing what to do. So what I would recommend everyone does, just simply look in your house, figure out where the safest place is. And if you don't have a safe place in your home – let's say you live in a mobile home, or an apartment building, or something like that – you need to have an alternative place to go nearby that you can get to. And if you don't have an alternative place nearby to get to, then you really got to be careful and you gotta have even more advanced warning in order to get to a safe place.

STEFANIE: And the first thing that you would think of would be a basement, is that right?

JEFF: Yeah, below ground is always better. So if you have a basement – and we're lucky here in Iowa, many Iowans do – and when you get into the basement you might be thinking, "Go to the southwest corner." Actually, it doesn't make that much difference because of the way the winds are in tornadoes that being in any particular corner of the basement doesn't really matter. What is important is to put as many walls between yourself and the exterior of the house. And be in a small room, like an interior closet, bathroom. Look inside the room: are there things that can fall on you? You don't wanna be hanging out in a supply room where you have boxes stacked up. Those could land on you. Get under something sturdy – a workbench, something like that – it would be best.

STEFANIE: What about a stairwell?

JEFF: A stairwell might work. It depends on how it's situated and where is it at, versus, you know, the exterior and how many windows. You have to kinda see it to know for sure.

STEFANIE: So are there any websites that you can go to, to learn more?

JEFF: Sure, in fact that's a good segue way into our new preparedness page in the National Weather Service website. And in that we have links and information about saferooms, and how to design one and where to go in your home – or how you can figure that out.

STEFANIE: Excellent. So Jeff, let's say that you're not near a structure – you're not at home, you're out at a baseball game or something, you're at the park with your kids – you see the tornado coming, you hear the tornado sirens. What are you gonna do?

JEFF: Well, at that point, you know, it's probably gonna be pretty panicky, because there are going to be a lot of people and everybody's going to be going every which way to try to get out of the way of this tornado. So you really probably gotta think pretty calmly. The first thing I would do is look for a safe shelter. Is there a building nearby that I can gain access to quickly? I would not choose my car for a tornado safety shelter, that's not good – maybe a ditch, maybe a low-lying area, a culvert if it's not flooded might offer protection. You gotta remember what gets you in a tornado is, generally speaking, debris being hurled in the air and that becomes very dangerous, lethal projectile. [A] two by four going at 140 miles an hour can just go through walls. So, you can easily be killed by blunt force trauma in a tornado. So you need to protect your head and you need to get out of the way, make yourself a low target and to get under something sturdy or in a sturdy structure.

That brings up car safety and there's some differing advice out there on this, but the most recent I've heard is that if you're in a car, it's kind of case-dependant. If you're being to the point where you can't escape a tornado and you're in a vehicle, you've got really two choices. You can get out, one, and go to a culvert, go to a safe low place if you can – or B, you have to ride it out in your car. If I was to choose option "B" I would try to put it into the ditch or somewhere low...

STEFANIE: Ok...

JEFF: ...to try to make it a smaller target or a lower silhouette. A couple places to avoid: on the interstate, the overpasses. Actually that is a place for debris loading and the wind speeds are actually accelerated through there. You have a, kind of a tunneling effect.

STEFANIE: Really?

JEFF: So you don't want to go underneath the interstate girders. That's a bad place.

STEFANIE: Because that's someplace I think that people have been told in the past that they could go.

JEFF: Yeah, this originated from 1990 or '91 in Kansas. They had a storm chaser down there that took shelter underneath one of those and survived and had a video of it. And then there for a couple of years everybody was saying to do that and then we found out later that's not a good thing.

Couple myths out there to get rid of about tornadoes: When I was a kid they always told us to open the windows–

STEFANIE: Right.

JEFF: –to equalize the pressure.

STEFANIE: Right – same here.

JEFF: You know, pressure – yes, there is a pressure deficit in a tornado – it's much lower than the surrounding areas. But what gets you is wind debris. And to open the windows, what are you doing? You're allowing the house to pressurize quicker, and putting more upward force on the roof. It acts like an airplane wing – it creates low pressure above the roof. So that gives an upward force – the same thing that makes an airplane fly. It can lift your roof right off your house.

STEFANIE: Some great tips, Jeff. Thank you!

JEFF: You're welcome.