A multidisciplinary team studying weather patterns and records of emergency room visits found a rise in patients with asthma attacks in the days after a thunderstorm. They believe that rain breaks apart pollen grains, releasing allergens, while high winds scatter those particles and other irritants.

Twenty million Americans suffer from asthma, a disease that can be uncomfortable — even life threatening — and can interfere with the simplest of life's routines. For patients with asthma, staying attack-free often depends on knowing what triggers their attacks. Now, research shows something as simple as the weather may be a bigger factor than we ever imagined.

For Leslie Tripp, the first signs of an asthma attack are all too familiar. "I just feel a tightening in my chest, and I can tell that something's coming on," says Tripp. "Probably the biggest trigger for an asthma attack for me is humidity." All kinds of things can trigger an asthma attack. Pets, cleaning solutions, irritants like pollen and pollution in the air, and even perfume are some of those things. Now, you can add something else.

A study links thunderstorms and asthma attacks. Meteorologist J. Marshall Shepherd, Ph.D., says rain and wind break up irritants in the air and spread them around. "The rain actually can break the pollen into smaller allergens — the pollen grains — and this can actually exacerbate upper respiratory problems," says Dr. Shepherd, at the University of Georgia. "Secondly, the windy gusts from thunderstorms actually serve to disperse these allergens in a larger area around the thunderstorms themselves."

Climate scientists and epidemiologists from the University of Georgia and Emory University analyzed 12 years of emergency room data from 41 hospitals in 20 Georgia counties. Immediately after thunderstorms, E.R. asthma visits tracked significantly higher.

"Certainly, any location that sees thunderstorms regularly throughout the year would likely be susceptible to this phenomenon," Dr. Shepherd says.

For asthma sufferers like Tripp, it could be food for thought. "Asthma is a chronic disease that may be brought on by laughter," says Dr. Shepherd, "so perhaps it could be a contributing factor for some people." For Leslie Tripp, the first sign of an asthma attack are all too familiar. "I just feel a tightening in my chest, and I can tell that something's coming on," says Tripp. "Probably the biggest trigger for an asthma attack for me is humidity." All kinds of things can trigger an asthma attack. Pets, cleaning solutions, irritants like pollen and pollution in the air, and even perfume are some of those things. Now, you can add something else.

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chest, and trouble breathing. Asthma is linked to allergies, although not everyone with asthma has allergies. People with allergies tend to react more strongly to the presence of allergens such as animal dander, dust mites, pollen or mold, as well as cigarette smoke and air pollution.

The American Meteorological Society contributed to the information contained in the TV portion of this report.

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