Thunderstorms And Asthma -- Meteorologists And Epidemiologists Study Connection Between Thunderstorms And Asthma Attacks

September 1, 2008 — 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.

A new 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 and wind actually break the pollens into smaller allergens — the pollen grains — and this can actually exacerbate upper respiratory problems," says Dr. Shepherd, of the University of Georgia. "Secondly, the wind gusts from thunderstorms actually serve to disperse these allergens in a larger area around the thunderstorms themselves."

Climatologists 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 spiked 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. The more she knows about potential asthma triggers, the better shot she has at preventing the next attack. "Certainly, any location that sees thunderstorms regularly throughout the year would likely be susceptible to this phenomenon," Dr. Shepherd says.

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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 pollution and pollen in the air, and even perfume are some of those things. Now, you can add something else.

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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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