

Thunderstorm Asthma

Frequently Asked Questions

This document has been developed by [ASCIA](https://www.allergy.org.au), the peak professional body of clinical immunology/allergy specialists in Australia and New Zealand. ASCIA information is based on published literature and expert review, is not influenced by commercial organisations and is not intended to replace medical advice. For patient or carer support contact [Allergy & Anaphylaxis Australia](https://www.allergy.org.au) or [Allergy New Zealand](https://www.allergy.org.au).

Q 1: How can weather affect asthma?

Around one in four people with allergic rhinitis (hay fever) also have asthma. Pollen which is spread by wind can trigger asthma as well as allergic rhinitis symptoms, most often in spring and summer. Rain from thunderstorms can make some allergic rhinitis and asthma symptoms worse.

Q 2: What triggers thunderstorm asthma?

Thunderstorm asthma is triggered by massive loads of small pollen particles being released into the air. This is caused by fast changes in wind, temperature and humidity over a short period of time. Strong winds can spread pollen from grasses and other plants over long distances.

Intact pollen grains are usually trapped in the upper airways and do not reach the lungs. When it rains, or is humid, pollen grains can absorb moisture and burst open, releasing hundreds of small pollen particles that can enter the small airways of the lungs. This can trigger asthma symptoms, making breathing difficult, and can cause an asthma attack.

It is important to note that:

- Not all thunderstorms trigger thunderstorm asthma, even on days with high pollen counts.
- Other weather factors are involved in thunderstorm asthma.
- It is not only people with pollen allergy who may be affected by thunderstorm asthma.
- Fungal spores can also affect some people with asthma and other respiratory diseases during a thunderstorm.

Q 3: Can asthma that is triggered by pollen be treated?

If your asthma is triggered by pollen and/or is worse in spring and summer, see your doctor for advice. They may recommend and prescribe different medications to help treat your asthma and/or allergy symptoms. It is important to have a current asthma action plan, and regularly use preventer medication to manage symptoms.

Q 4: How do you protect against thunderstorm asthma?

If you have allergic rhinitis, try to stay inside just before, during and after thunderstorms, and on high pollen days. See your doctor or pharmacist to make sure that your allergic rhinitis is well treated. If you experience symptoms of asthma such as chest tightness, wheeze, shortness of breath or cough, see your doctor for a plan to manage asthma. If you are prescribed a preventer medication, use it every day, particularly if pollen counts are high, or thunderstorms are predicted.

© ASCIA 2024

Content updated August 2024

For more information go to www.allergy.org.au/patients/asthma-and-allergy

To support allergy and immunology research go to www.allergyimmunology.org.au/donate