
Epidemic Thunderstorm Asthma

This material was developed prior to coronavirus (COVID-19).

Follow current coronavirus (COVID-19) [directions](#) for physical distancing and wearing a face covering when you leave home.

Summary

- People who have asthma or hay fever can get severe asthma symptoms during grass pollen season when high amounts of grass pollen in the air combine with a certain type of thunderstorm.
 - Epidemic thunderstorm asthma is when a large number of people develop asthma symptoms over a short period of time.
 - Epidemic thunderstorm asthma events are uncommon and don't occur every year. In south-east Australia they can happen during grass pollen season from October through December. They are not the cause of seasonal increases in asthma symptoms seen every year.
 - Thunderstorm asthma can affect those with asthma or hay fever – especially people who experience wheezing or coughing with their hay fever.
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What is epidemic thunderstorm asthma?

Grass pollen season brings a seasonal increase in asthma and hay fever. It also brings the chance of thunderstorm asthma. When a large number of people develop asthma symptoms over a short period of time, caused by high amounts of grass pollen and a certain type of thunderstorm, it is known as epidemic thunderstorm asthma.

Melbourne experienced the world's largest epidemic thunderstorm asthma event on 21 November 2016, with thousands of people developing breathing difficulties in a very short period of time.

Epidemic thunderstorm asthma is thought to be triggered by a unique combination of high grass pollen levels and a certain type of thunderstorm. Grass pollen grains get swept up in the wind and carried for long distances; some can burst open and release tiny particles that are concentrated in the wind gusts that come just before a thunderstorm. These particles are small enough to be breathed deep into the lungs and can rapidly trigger asthma symptoms, making it difficult to breathe.

This can become very severe, very quickly and many people may require medical help at the same time.

Thunderstorm asthma can affect those with **asthma** or **hay fever** – especially people who experience wheezing or coughing with their hay fever. That's why it's important for people with asthma or hay fever to know about thunderstorm asthma and what they can do to help protect themselves during grass pollen season.

It is important to understand that there are a large range of **triggers** that can set off a person's asthma symptoms. This includes the unique combination of high grass pollen in the air and the particular type of thunderstorm associated with thunderstorm asthma. Regardless of the trigger, the symptoms and treatment of asthma are essentially the same.

When do epidemic thunderstorm asthma events take place?

Epidemic thunderstorm asthma events are uncommon and don't occur every year. In south-east Australia they can happen during grass pollen season from October through December.

Who is most at risk of thunderstorm asthma?

Those at increased risk of thunderstorm asthma include:

- people with asthma
- people with undiagnosed asthma (i.e. people who have asthma symptoms but have not yet been diagnosed with asthma)
- those who have had asthma in the past
- people with hay fever who may or may not have asthma.

It's important to remember:

- People with hay fever in south-eastern Australia are likely to be allergic to grass pollen, and are therefore at increased risk of thunderstorm asthma.
- Having both asthma and hay fever or poor control of asthma increases the risk further.
- Thunderstorm asthma can affect people living in metropolitan, regional or rural areas, even if they don't have a history of asthma.

Symptoms of epidemic thunderstorm asthma are essentially the same as asthma triggered by other causes.

Recognising asthma symptoms

Asthma affects about one in nine to ten Australians and can start at any age – even as an adult. It is important to recognise asthma symptoms and see your GP if you experience any of them.

People with **asthma** may experience one or more of the following common symptoms:

- wheezing – a high-pitched sound coming from the chest while breathing
- breathlessness
- a feeling of tightness in the chest
- a persistent cough.

These symptoms mean that a person's lungs (lower airways) are affected.

Asthma symptoms come and go over time, and you don't need to have all of these symptoms to be diagnosed with asthma. Not every person experiences the same symptoms. Sometimes people with asthma don't notice their symptoms, and sometimes they ignore them.

People with well controlled asthma have mild symptoms, less often.

A diagnosis of asthma is more likely if you have eczema or hay fever, or have close relatives with allergies and/or asthma, and if your symptoms:

- keep coming back, or happen at the same time each year
- are worse at night or in the early morning
- are clearly triggered by exercise, allergies or infections, and
- improve quickly with reliever medication.

Recognising hay fever symptoms

Around one in four people with hay fever also have asthma, and it is important to recognise that pollen can trigger asthma as well as hay fever symptoms.

People with **hay fever** may experience one or more of the following common symptoms:

- runny nose
- itchy nose
- sneezing
- itchy, watery eyes.

These symptoms mean that a person's eyes and upper airways are affected. Hay fever does NOT include symptoms such as wheezing, shortness of breath or chest tightness, which are asthma symptoms.

If you have hay fever and also develop symptoms such as wheeze, shortness of breath or chest tightness, see your GP.

What can I do to protect myself this pollen season?

Epidemic thunderstorm asthma events are uncommon and don't occur every year. However, it's important for everyone in south-east Australia to know about epidemic thunderstorm asthma and what they can do to help protect themselves if an event does occur.

Everyone in the community should also know the signs and symptoms of asthma, and know the **four steps of asthma first aid** so they know what to do if someone is having an asthma attack.

Protecting yourself if you are at increased risk of thunderstorm asthma

All people at increased risk of thunderstorm asthma should:

- learn about thunderstorm asthma and what they can do to help protect themselves during grass pollen season
- where possible, avoid being outside during thunderstorms from October through December – especially in the wind gusts that come before the storm. Go inside and close your doors and windows, and if you have your air conditioner on, turn it to recirculate.
- have an asthma action plan (if advised to by your GP) and have practical knowledge of the four steps of asthma first aid
- have reliever medication appropriately available in grass pollen season and be aware of how to use it (ideally with a spacer)
- be alert to and act on the development of asthma symptoms as explained in your asthma action plan if you have one, or if you don't, use asthma first aid.
- Check the epidemic thunderstorm asthma forecast during the grass pollen season at **VicEmergency**.

In addition to the above bullet list, take the following precautions as relevant.

Protecting yourself if you have asthma

If you currently have asthma, make sure you have regular reviews with your GP about your asthma to ensure that you have the right **asthma medication, know how to use it properly** and that you have good control of your **asthma**.

It is also important that you have an asthma action plan and that you see your GP to ensure that it includes advice for thunderstorm asthma. Always carry your reliever medication with you – this is your emergency asthma first aid medication.

Protecting yourself if you have symptoms that may be asthma

If you think you have symptoms of asthma it is important you talk to your GP to determine if they are due to asthma.

If you suddenly develop asthma symptoms and you think you are having an asthma attack, then follow the four steps of **asthma first aid** and make sure you follow up with your GP.

Protecting yourself if you have had asthma in the past

Talk with your GP about your risk of thunderstorm asthma and what additional actions would be appropriate for you – particularly the need for asthma preventer medication over the grass pollen season.

Protecting yourself if you have hay fever

If you have hay fever, understand that you are at increased risk of asthma, including during an epidemic thunderstorm asthma event. If you think you may have symptoms of asthma, for example if you wheeze, are short of breath or cough with your hay fever, then talk to your GP about determining whether they could be related to asthma.

If you have hay fever only, see your GP or pharmacist about a hay fever treatment plan and what you can do to help protect yourself from the risk of thunderstorm asthma. This may include having an asthma reliever puffer appropriately available – these are available from pharmacies without a prescription.

If you develop asthma symptoms, follow the **four steps of asthma first aid** and make sure you follow up with your GP.

You can also stay informed about pollen counts by visiting the **Melbourne Pollen Count and Forecast** website or downloading the app, or you can visit the **Deakin AirWatch** website.

How will I know when an epidemic thunderstorm asthma event may happen?

Epidemic thunderstorm asthma forecasts in Victoria are available from 1 October to 31 December (the duration of the grass pollen season).

Download the **Vic Emergency app** from **Google Play** or the **App Store** and set up a 'watch zone' for your location to make sure you're notified of the risk of an epidemic thunderstorm asthma event occurring. You can also visit the **Vic Emergency thunderstorm asthma webpage** for updates and information.

Where to get help

Medical assistance

- In an emergency, always call triple zero (000)
- Emergency department of your nearest hospital
- Your GP
- Your nearest pharmacy (for medication)

- **NURSE-ON-CALL** Tel. **1300 60 60 24** – for expert health information and advice (24 hours, 7 days)

- **National Home Doctor Service** Tel. 13 SICK (**13 7425**) for after-hours home GP visits (bulk billed)

Information about asthma

- **Asthma Australia Helpline** Tel. 1800 ASTHMA (**1800 278 462**)

- **National Asthma Council of Australia** Tel. **1800 032 495**

- **Asthma Australia Asthma App** – provides easy access to the latest asthma information, asthma medication and devices, device technique videos, asthma action plans, asthma first aid steps

Information about hay fever

- **ASCIA** (Australasian Society of Clinical Immunology and Allergy)

This page has been produced in consultation with and approved by:

Asthma Australia

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