

Thunderstorm asthma

Community factsheet

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.

Epidemic thunderstorm asthma is thought to be triggered by a unique combination of high pollen levels and a certain type of thunderstorm, causing a large number of people to develop asthma symptoms over a short period of time.

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 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. This can place a lot of pressure on health services.

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.

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. These will vary from person to person and can include:

- changes in weather and temperature
- colds and other respiratory tract infections
- allergens from house dust mites, moulds, animals and pollen
- exercise
- cigarette and bush fire smoke
- irritating chemicals.

The symptoms and treatment of asthma from all these triggers is essentially the same.

The important things to remember about epidemic thunderstorm asthma events are:

- they are uncommon and are not the cause for seasonal increases in asthma symptoms seen every year
- they can affect many people all at the same time
- they can affect:
 - people with asthma
 - people with undiagnosed asthma (that is, 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

- 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.

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.

Those 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.

What are the symptoms of asthma and hay fever?

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.

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

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

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 or shortness of breath.

Could I have asthma?

Asthma affects about one in nine people and can start at any age. Many people don't realise that you can develop asthma at any age, even as an adult. It is important to recognise asthma symptoms and see your GP for review if you experience any of them.

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.

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.

If you have hay fever and also develop symptoms such as wheeze, shortness of breath or chest tightness, see your GP. These are lower airway symptoms (that is, in the lungs), and may mean you also have asthma.

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.

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](#) 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 or cough with your hay fever, then talk to your GP about determining whether they could be related to asthma or not.

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 – 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 will start on 1 October and will continue through 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 before an epidemic thunderstorm asthma event occurs.

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)

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Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne.

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Available at www.betterhealth.vic.gov.au/health/conditionsandtreatments/thunderstorm-asthma