



## Factsheet 47

Updated on 23rd May 2022

## Key Facts about asthma attacks

- Asthma affects 5.4 million people in the UK.<sup>1</sup>
- Every three seconds someone in the UK could be having a potentially life-threatening asthma attack<sup>1</sup>
- It was found that an estimated 3.07 million prescriptions of oral steroids are issued to people with asthma in a year, an average of one every 10.3 seconds. <sup>1</sup>
- Every day, the lives of three families are devastated by the loss of a loved one due to an asthma attack. Overall, two thirds of these deaths could be avoided. <sup>1</sup>
- It is important that we support people with asthma recognise the triggers that make their asthma worse and how their medicines play a key role in managing their asthma. <sup>2</sup>

### What is an asthma attack?

An asthma attack is a sudden worsening of asthma symptoms caused by bronchospasm (tightening of the smooth muscle). The airways become swollen and inflamed. Mucous production increases making the airways sticky and breathing more difficult.

Symptoms of an asthma attack include trouble emptying the lungs (expiration), wheezing, coughing, shortness of breath and chest tightness. Performing simple tasks becomes difficult and in severe attacks people find it difficult to talk or walk. The person often feels anxious and panicked. Respiratory rate will increase as the person struggles to get air in and out of their lungs. In severe attacks, the asthma symptoms worsen despite rescue medication, in these cases the fingertips/lips may be blue, the person may become pale and sweaty. <sup>2</sup>

Moderate asthma attacks are usually relieved using rescue (bronchodilator) treatment. <sup>3</sup> The airways dilate, and the person feels better after a few minutes. Severe attacks last longer but are less common. In severe asthma attacks the person does not feel complete relief from bronchodilator treatment and require medical help. <sup>3</sup>

Often the initial asthma attack can be followed by a further attack. This is often referred to as the "late Phase." Symptoms can often feel very similar although in some cases breathing is more difficult due to the tightening of the airways (bronchoconstriction) and swelling (oedema). Even if people recover from the first attack it is important that they look out for any symptoms of a further attack a few hours after the first one.

It is important to remember that anyone having an asthma attack should seek medical help even if they recover after the use of their reliever inhaler as an asthma attack is a sign that the person's asthma is out of control. <sup>3</sup>

People who have had a previous asthma attack are at higher risk from dying from their asthma than those that have never had an attack. <sup>3</sup>

### How can a person with asthma recognize the early signs of an asthma attack?

Early warning signs are changes that happen before the asthma attack. Early asthma attack symptoms are not severe enough to stop the person carrying out normal activities. Early recognition of a pending attack could prevent one or the attack getting worse.

Early signs may include:

- Frequent cough, especially at night
- Reduced peak flow readings
- Becoming short of breath easily
- Feeling tired and weak
- Wheezing and coughing after exercise
- Signs of a viral infection or exposure to allergens (hay fever)
- Trouble sleeping with night time awakening

Poor recognition of early symptoms of an attack was thought to be a contributing factor in asthma deaths in the National Review of Asthma Deaths Report. It was thought that poor perception of risk contributed to 70% of children and 83% of young adult asthma deaths. <sup>4</sup>



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### What to do in an asthma attack?

If the person has a personalised asthma Action plan (PAAP) they should follow the instructions in the “red zone” or emergency instructions.

- Sit upright or in the position they feel most comfortable, DO NOT lie them down. Loosen any tight clothing.
- If the person has their reliever medication, they should use it (This is usually blue).
- The person should have 4 puffs initially, these should be individual puffs every 30-60 seconds. If symptoms are not relieved the person can have an extra puff every 30-60 seconds (maximum 10 puffs).<sup>3</sup> If the person has an aerosol inhaler (pMDI) they should use a spacer device if possible.
- If the person recovers, they should go to see their GP or other Health Care Professional for a review the same day.
- If the person feels worse or they do not feel better after 10 puffs, they should call 999 and explain to the operator that the person is having an asthma attack.<sup>2 3</sup>
- If after 15 minutes the person does not feel better give a further 10 single puffs of reliever inhaler, this can be repeated until an ambulance arrives.<sup>2</sup>

### What to do after an attack

- People will often be given a short course of oral steroids (prednisolone) after an attack. This is usually for a minimum of 5 days (3 days in children). The course may be extended if the person has not completely recovered after 5 days (3 days in children). Reducing courses of steroids are not required if initial course is 14 Days or less.<sup>2 3</sup>
- If the person has attended the Emergency Department, out of hours or been admitted to hospital with an asthma attack they should make an appointment for a review with their GP two within in 2 days of discharge.<sup>2 3</sup>
- If the person has had a severe asthma attack, they should be under hospital follow up for at least one-year.<sup>2</sup>
- Anyone who has had a near fatal asthma attack should be followed up by a hospital specialist indefinitely.<sup>2</sup>
- People with asthma should be given an opportunity to discuss what they think may have caused the asthma attack; healthcare professionals should discuss trigger avoidance to try to reduce further attacks.<sup>3 4</sup>

### To summarise

- Asthma attacks can be avoided.
- Asthma attacks can be life threatening and cause over 1,000 asthma deaths per year in the UK<sup>5</sup>
- Primary and secondary care clinicians need to adopt a proactive approach to asthma management, this should include patient education around trigger avoidance, recognising worsening asthma control and the use of PAAPS.
- People with asthma and their family should be aware of what to do in an asthma attack.
- Any person who has attended ED, out of hours or admitted to hospital should be reviewed in primary care within 2 days of discharge.<sup>2</sup>

### References

<sup>1</sup> Asthma UK (2017) Media Centre. Available at: <https://www.asthma.org.uk/about/media/facts-and-statistics/>

<sup>2</sup> National Institute for Health and Care Excellence (2022) Scenario: Acute Exacerbation of asthma. Available at: <https://cks.nice.org.uk/topics/asthma/management/acute-exacerbation-of-asthma/>

<sup>3</sup> British Thoracic Society/ Scottish Intercollegiate Guidelines Network (2019) British guideline on the management of asthma 158. Available at: [sign158-updated.pdf](https://www.bts.org.uk/media/158-updated.pdf)

<sup>4</sup> Royal College of Physicians (2014) Why asthma Still Kills, National Review of Asthma Deaths. Available at: 2018. Available at: <https://www.asthma.org.uk/globalassets/get-involved/external-affairs-campaigns/publications/severe-asthma-report/auk-severe-asthma-gh-final.pdf>

<sup>5</sup> Asthma+Lung UK (2019) Asthma death toll in England and Wales is the highest this decade. Available at: <https://www.asthma.org.uk/about/media/news/press-release-asthma-death-toll-in-england-and-wales-is-the-highest-this-decade/>