

Asthma overview



What is asthma?

Asthma is a chronic (ongoing) health condition characterised by inflammation of the airways of the lungs. This inflammation makes the airways highly sensitive. Doctors call this sensitivity of the airways 'bronchial hyper-responsiveness' or 'bronchial hyper-reactivity'.

Because people with asthma have sensitive airways, when they are exposed to certain trigger factors (such as some medicines or things to which they are allergic), their over-sensitive airways narrow, reducing the airflow through them, resulting in noticeable asthma symptoms. The reduced airflow is due to inflammation of the lining of the airway, extra production of mucus in the airway and the tightening of the smooth muscles around the airways. This tightening is called bronchoconstriction.

In people with asthma, chronic inflammation may eventually lead to microscopic changes in the airways. Proper treatment of asthma, as advised by your doctor, can help stop this process and improve your lung function.

Lots of factors contribute to the development of asthma — for example, a family history of asthma, eczema or allergic rhinitis — and many things can trigger asthma symptoms if a susceptible person is exposed to them. These causes and triggers of asthma vary from person to person.

What triggers asthma symptoms?

For many people with asthma, it is an allergy that brings on ('triggers') their asthma symptoms. But some people have asthma that does not involve an allergic reaction; for example, you may only have asthma after vigorous exercise — so-called exercise-induced asthma.

The table below shows some common asthma triggers — those that are allergens (substances that provoke an allergic reaction) are on the left, and those that can trigger asthma symptoms but do not involve an allergic reaction are on the right.

Common asthma triggers	
Allergens (substances that produce an allergic reaction)	Other triggers
<ul style="list-style-type: none">▶ Dust mites and their droppings▶ Pollens (usually from grasses, trees or weeds, rather than flowers)▶ Animal or bird allergens: dander (skin scales or flakes from hair or feathers); saliva or urine▶ Moulds▶ Cockroach allergen (cockroach droppings found in the dust of houses where cockroaches are present)▶ Some foods: e.g. shellfish; nuts; fish; eggs; milk and seeds (e.g. sesame seeds)▶ Occupational allergens (e.g. sawdusts, soldering flux)	<ul style="list-style-type: none">▶ Some medicines such as aspirin▶ Air pollution (including cigarette smoke)▶ Exercise▶ Emotions and emotional reactions such as stress, anxiety, hearty laughing or crying▶ Heartburn (reflux)▶ Viral respiratory infections▶ Cold air and ambient temperature changes▶ Some food additives (sulphur dioxide is the food additive most likely to trigger asthma)

What are the symptoms of asthma?

The characteristic symptoms of asthma include:

- ▶ breathlessness;
- ▶ wheezing (a whistling sound in the chest);
- ▶ chest tightness; and
- ▶ cough.

The aim is to avoid these symptoms by taking action early. Some indications of worsening asthma that needs to be treated include:

- ▶ waking at night with asthma symptoms;
- ▶ increasing use of 'reliever' medicine; and
- ▶ decreasing or variable peak flow meter readings, which measure the maximum rate of air flow from the lungs.

What treatments are available for asthma?

Asthma treatment usually involves managing your asthma with medicines, as advised by your doctor.

Medicines for asthma are divided primarily into 'relievers', 'preventers' and 'symptom controllers'. Most asthma medicines are delivered by an inhaler (puffer) device, although some are available in tablet or liquid form.

Relievers: these medicines are known as bronchodilators because they help to open up the airways, helping you to breathe more easily when you're having difficulty. Unless advised otherwise by your doctor, relievers should be used on an 'as-needed' basis for the relief of asthma symptoms.

Preventers: these work by reducing the underlying inflammation of the airways, helping to reduce the incidence and severity of episodes of asthma. Unlike reliever medicines, you should take your preventer every day, as prescribed by your doctor, to help keep your asthma under control.

Symptom controllers: these medicines help to open up the airways, and have a longer-lasting effect than most relievers. Symptom controllers are useful for people with asthma who find that their asthma is still not controlled even though they are taking their preventer medicine. Symptom controllers should be used in addition to preventer medicine.

Some asthma products contain a combination of a preventer and a symptom controller to help keep asthma under control.

Can breathing exercises help to improve asthma?

Regular practice of some special breathing exercises (such as those taught in the Buteyko breathing technique) has been shown to result in reduced use of reliever medicine and improvement in asthma symptoms in some people. However, these breathing exercises have not been shown to improve lung function tests.

Learning breathing exercises may also help you psychologically when you do have an attack.

If you are planning to try any new therapies or techniques to help manage your asthma, always talk to your doctor first.

What can you do to help control asthma?

You can help keep your asthma symptoms under control by:

- ▶ visiting your doctor regularly for check-ups to ensure that you are taking the correct balance of medicines;
- ▶ making sure you have an asthma action plan that is written down and readily available;
- ▶ looking for symptoms of worsening asthma (for example, by using a peak flow meter to monitor your lung function);
- ▶ using prescribed medicines regularly, as instructed by your doctor;
- ▶ stopping smoking; and
- ▶ avoiding asthma triggers whenever possible.

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