



A Guide To Asthma



AstraZeneca 
Respiratory





Page No.

Contents

- | | |
|----|------------------------------------|
| 1 | Asthma |
| | What is asthma? |
| 2 | Symptoms |
| | Causes |
| | How is asthma diagnosed? |
| | Managing asthma |
| 3 | Trigger factors |
| 6 | Medical treatment of asthma |
| | Inhaler devices |
| 8 | Complementary therapy |
| 9 | Asthma and rhinitis |
| | Women and asthma |
| 10 | Asthma attack |
| 11 | 5-minute rule |

Produced by AstraZeneca Pharmaceuticals (Ireland) Ltd.

This booklet is part of a series on asthma. It endeavours to help you gain a better understanding of asthma. It is not intended as a textbook on asthma. You should contact your doctor for any further information. Always follow the advice of your doctor.

AstraZeneca 
Respiratory





Asthma

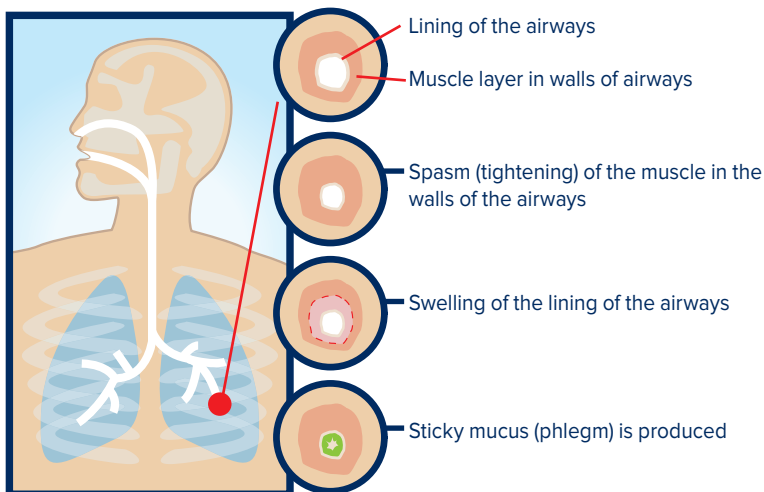
The rate of rise in asthma appears to have reached a plateau. Ireland has one of the highest rates of asthma in Europe and is currently ranked fourth highest in the world for asthma prevalence. As many as 470,000 Irish people have asthma and 1 in 5 Irish children will have asthmatic symptoms at some point in childhood. [Source: Asthma Society of Ireland]

It can be frightening to find out that you have asthma however, it is reassuring to know that asthma can be well controlled with the appropriate medication. We hope that this booklet will help to answer questions you might have.

What is asthma?

The lungs consist of a series of tiny branching tubes called airways, which carry air in and out of little air sacs, exchanging oxygen for carbon dioxide. The airways (or bronchial tubes) have muscles within their walls and a lining layer (see diagram). In asthma, the airways are more narrow than normal so it is more difficult for air to pass into the lungs and for used air to be exhaled. The sensation is like breathing in and out through a straw.

- The muscle layer tightens around the airways
- The lining layer becomes swollen and inflamed
- The airways make more mucus than usual





Symptoms

1. Cough: after exercise and/or at night

A Cough may be the only symptom of asthma

2. Wheeze: whistling sound heard most often when breathing out
3. Shortness of breath and complaints of tightness in the chest
4. Lack of stamina during sport/exertion
5. In severe attacks: laboured breathing, blue discolouration of the lips/tongue

Causes

The exact cause of asthma is unknown however, it can run in families along with other allergic conditions such as hay fever, allergic conjunctivitis (itchy eyes) and eczema. Outdoor pollution, although not proven to be a cause of asthma, can make symptoms worse. Passive smoking can increase symptoms.

How is asthma diagnosed?

History: This is the information you give your doctor about your symptoms and how they affect you, your home environment, occupation, smoking history and medications.

Physical examination: The doctor will examine and listen to your chest.

Breathing tests: Simple breathing tests measure airflow in and out of the lungs.

Chest x-ray: In some cases a chest x-ray may be required.

Exercise testing: This is performed if appropriate.



Managing asthma

- Avoidance of triggers factors
- Medications





Trigger Factors

In asthma the inflamed airways are more irritable than normal.

As a result they are quick to narrow in response to various stimuli:



Virus infections:
head colds,
sore throats
and flu



Fumes: tobacco
smoke, fire
smoke, paint,
perfumes and
air pollution



Exercise



Allergies e.g.
house dust
mite, pets
and pollens



Weather:
cold air,
damp
conditions
and fog



Stress



Occupation:
some jobs
may not be
suited to
asthmatics



**Aspirin and other
medications:** some
people especially
young adults should
avoid aspirin unless
prescribed by your
doctor. Other drugs
e.g. Non-steroidal
anti-inflammatories
and beta-blockers
can sometimes
provoke asthma.





House dust mites

These are microscopic creatures that feed off human skin scales and thrive very well in warm humid atmospheres. Some simple measures can help reduce the number of dust mites:



1. Bed linen should be washed weekly at 60 degrees celsius. Special covers, which fully enclose the mattress, duvet and pillows are available. They prevent the dust mites from getting through
2. Eliminate or reduce books and soft toys from the bedroom as they attract the dust mite
3. Vacuum carpets and soft furnishings twice weekly
4. Toys: wash furry toys frequently
5. Ventilate the house well
6. Flooring: shallow pile carpet or sheer surface floors are preferable e.g. wood or lino
7. Dust: damp dust all surfaces regularly

Pets

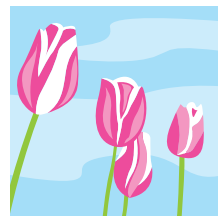
Dogs and cats are not generally encouraged as pets for people with asthma. Cats tend to produce more symptoms than dogs. If there is already a pet in the home, it is best kept outdoors. Pets should never be allowed in the bedroom.



It should be noted that it may take 6 months for cat allergen to be fully eliminated from the house after the cat has been removed.

Pollen

Be aware of high pollen counts especially in the early morning and late evening. There are very effective hay fever treatments available to alleviate the discomfort of symptoms. Discuss these with your doctor or pharmacist.



If the pollen count is high:

- Keep windows in the house and car closed
- Wear sunglasses if appropriate
- Wash your hands and face when you come indoors
- Avoid drying clothes outside and/or shake well before bringing inside





Food

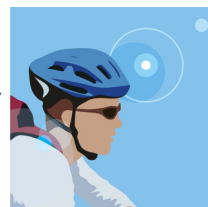
It is rare for foods to trigger asthma symptoms unless they occur as part of an anaphylactic reaction which occurs with foods such as nuts, shellfish, kiwi and egg.

Mould

Symptoms of asthma can be triggered by the presence of mould spores. Avoid condensation in the house. Air the house well every day and avoid drying clothes on radiators.

Exercise

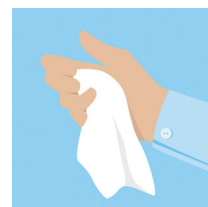
It is very important that people with asthma continue to have an active lifestyle and participate in sports if desired.



1. Warm up properly before exercise
2. Wear a scarf around the nose and mouth when exercising outdoors on cold dry days
3. Swimming is usually a very good form of exercise for asthmatics because the air is warm and moist. However, very occasionally, chlorine in the water can cause symptoms to worsen.
4. If necessary, reliever medication can be taken 15 minutes before planned exercise. Discuss this with your doctor.

Viral infections

Viruses are one of the most common trigger factors for people with asthma. Viruses are rampant and avoiding them can be difficult. Staying healthy is important. Where possible try and avoid people with colds and flu.



Ask your doctor about getting the flu and pneumonia vaccine in autumn.

Environmental pollutants and Smoking

Environmental pollutants and non-allergic environmental triggers such as cigarette smoke, chemical irritants, or strong odours, can also cause deterioration in your condition. If you smoke or are exposed to passive smoking, you increase the risk of an asthma attack and may permanently damage your airways.





Occupational

If you have developed asthma as an adult, it may have been caused by something at work. Occupational asthma can sometimes take weeks, months or years to develop. Look out for whether your symptoms worsen when at work or improve when not at work. Work place triggers include chemicals found in spray paint, Latex, dust from flour and grain, wood dust and stress. Discuss these symptom changes with your doctor.



Medical treatment of asthma

Always follow your doctor's advice and read the instruction leaflet that comes with the medicine.

The following are the main forms of asthma management:

- Relievers: bronchodilators
- Controllers: inhaled steroids
- Combinations: inhaled steroid and a long acting reliever together in one inhaler
- Leukotriene receptor antagonists (LTRA)
- Oral Steroids

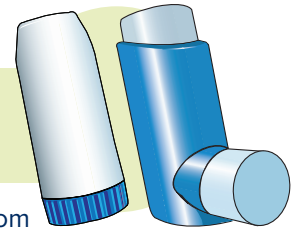
Relievers

Relievers work by relaxing the muscles surrounding the airways and allowing them to open up.

They can be:

- Short-acting (act quickly and for a short time)
- Long-acting (work over 12 hours and are used in combination with inhaled steroids)

Short-acting relievers (bronchodilators) are commonly referred to as the 'blue inhaler' and should be taken when you have asthma symptoms.



If the short-acting reliever inhaler is needed for symptom relief more than 2 times per week, consult with your doctor.

Examples of short-acting relievers are Bricanyl[®], Salamol[®] and Ventolin[®].





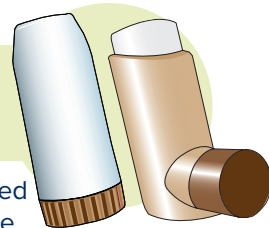
Long-acting relievers are usually taken in the morning and at night. Short-acting relievers are usually taken on an as-needed basis or before exercise.

Another type of reliever is Atrovent[®] (ipratropium). It is not as fast acting as the other relievers. It is taken up to 4 times per day.

Controllers

Preventers (inhaled steroids) are commonly referred to as the 'brown inhaler'. They reduce the inflammation and swelling in the lining of the airways. They do not provide immediate relief from symptoms however, they play a very important role in preventing symptoms.

They need to be taken every day in order to be effective, even when you are feeling well. Some take 2 weeks to become fully effective.



If your preventer is working correctly, you should not need to use your reliever regularly. Examples of preventers are Beclazone[®], Becotide[®], Flixotide[®] and Pulmicort[®].

Combinations

These inhalers contain both an inhaled preventer (reducing inflammation) and a long acting reliever (open airways for 12 hours).

These medications are taken regularly and help ensure a simple and effective treatment regime.

Examples are Seretide[®] and Symbicort[®].

Leukotriene receptor antagonists

These are medications that reduce inflammation and spasm in the airways. They are available in tablet form, which can be chewable, or in granules for smaller children.

Oral steroids

In situations where asthma becomes worse you may be prescribed a course of steroid tablets. Short courses of oral steroids rarely cause problems. They are very effective at bringing asthma under control and can prevent hospitalisation.





Side effects of asthma medications

Asthma drugs are generally well tolerated and have well documented safety profiles.

Common side effects of the fast-acting **relievers** include a fast heartbeat, hyperactive behaviour and a hand tremor. These effects tend to be felt at the beginning of the treatment or with overuse.

The main side effects associated with Atrovent are headaches, dizziness, tummy disturbances, dry mouth, tightening of the chest, cough or some irritation of the airway immediately after taking the inhaler.

Parents often worry about inhaled steroids and confuse them with oral steroids. In fact **inhaled steroids** are generally very well tolerated.

Inhaled steroids can sometimes cause hoarseness, sore throat and oral thrush. These side effects may be avoided by mouth rinsing or teeth washing after inhalation.

A full list of the medicine's side effects can be found in the patient information leaflet that comes with the medicine. Talk to your doctor if you have any concerns.

Complementary therapy

There is very little evidence to suggest that any form of alternative/complementary treatments help improve asthma symptoms.

It is **very important** to continue to take your prescribed medications and to inform your doctor should you be considering this form of treatment.

Inhaler devices and you

Generally medication in asthma is given through an inhaler. This ensures that the treatment goes directly to the lungs. If in doubt your doctor, practice nurse or pharmacist will be able to advise.

Nebulisers

Nebulisers are machines which deliver a dose of specially designed medication to the lungs, in vapour form (like a cloud). Nebulisers are rarely needed in well-controlled asthmatics and are usually seen only in emergency situations. Nebulisers should be maintained as per manufacturers' guidelines.





Asthma and rhinitis

A high percentage of people with asthma also experience symptoms of rhinitis.

Rhinitis is an inflammation of the lining of the nose.

Symptoms may include:

- Sneezing
- Itchy, blocked or runny nose
- Itchy throat, mouth and inner ear
- Headaches
- Loss of concentration
- Feeling generally unwell
- It can feel like a common cold but lasts much longer



Treatments can include antihistamines and nasal preparations – consult your pharmacist or doctor.

Women and asthma

Many women become more aware of their asthma when they are pre-menstrual. If you find that this is the case it is advisable to discuss this further with your doctor, as your asthma medications may need to be adjusted. Some also experience a change in their asthma with the menopause. Again discuss this with your doctor.

Asthma and pregnancy

If you are pregnant or planning to become pregnant, tell your doctor as your medication or dosage may need to be reviewed or adjusted. It is important that asthma is well controlled during pregnancy.



Smoking in pregnancy

It is clear from research that smoking while pregnant is harmful to mother and baby. In relation to asthma, the baby is more likely to develop a wheeze in infancy and asthma in early childhood.





Asthma in adults

Asthma can occur at any time in life. Many people who develop asthma as adults may give a history of being chesty children, or having repeated episodes of bronchitis. Occasionally asthma symptoms resolve in the teenage years, only to re-occur in later adulthood. Adult asthma is rarely caused by allergies. Asthma remains the subject of constant research and study.

How do I know if my asthma is becoming uncontrolled

- Chest tightness, increasing shortness of breath, cough and/or wheeze
- Waking at night with any of the above
- Needing to use your reliever more frequently and more than twice per week

An asthma attack

Asthma attacks can be very frightening so it is important to familiarise yourself with these simple steps to avoid panic should it occur (please see the Five Minute Rule opposite). **Don't be afraid to call for help should you feel you need it.** After the asthma attack is over, you should contact your doctor or nurse to have your medication reviewed.

An asthma attack can include any one or more combinations of the following:

- Severe wheezing
- Coughing that will not stop
- Tightened neck and chest muscles
- Difficulty talking
- Pale/sweating face
- Blue lips/fingernails
- Worsening symptoms despite use of inhaler medications



The Five Minute Rule

For emergency relief from an asthma attack.

1. Ensure the reliever inhaler is taken immediately. The reliever inhaler is usually blue and opens up narrowed air passages.
2. Sit down and loosen tight clothing.
3. Stay calm. Attacks can be frightening so it is important to stay calm.
4. If there is no immediate improvement, continue to take the reliever inhaler every minute for five minutes, or until symptoms improve: two puffs if MDI/evohaler or one puff if turbohaler.
5. If symptoms do not improve in five minutes, or if you are in doubt, call 999 or a doctor urgently. Continue to take the reliever inhaler until help arrives or symptoms improve.

Do not be afraid of causing a fuss, even at night.

If you are admitted to hospital or an accident and emergency department because of your asthma, take details of your treatment with you. You should also make an appointment with your doctor or nurse after you are discharged from hospital, so that you can review your asthma treatment to avoid the situation rising again.

The Five Minute Rule has been developed by the Asthma Society of Ireland and a number of Respiratory Consultants in Ireland.



Useful numbers for you

Your Doctor or Nurse

Phone: _____

Other booklets available:

- A guide to COPD
- Asthma, a Parent's Guide





Medication Plan

You have been prescribed _____.

Take this _____ in the morning and _____ in the evening.

If you need extra relief take _____ puff of _____

when you need it.

Contact _____ on phone number _____

if you need more advice.

Notes:





This booklet is provided to Healthcare Professionals by AstraZeneca Pharmaceuticals Ireland Ltd. for enhancement of patient care. www.astrazeneca.com
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Further information available on request from:

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Tel: (+356) 22778000 Fax: (+356) 22778120

Suspected adverse reactions and medication errors should be reported. Report forms can be downloaded from www.medicinesauthority.gov.mt/adportal and send by post or email, ADR reporting/203, level 3, Rue D'Argens, Gzira GZR 1366, Malta. Suspected adverse reactions and medication errors should also be reported to Associated Drug Company Limited on +356 22778000.

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