

## Managing asthma in adults

*A booklet for patients and their families and carers*

*December 2011*

 Evidence

Cover photograph: Asthma UK



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## What is this booklet about?

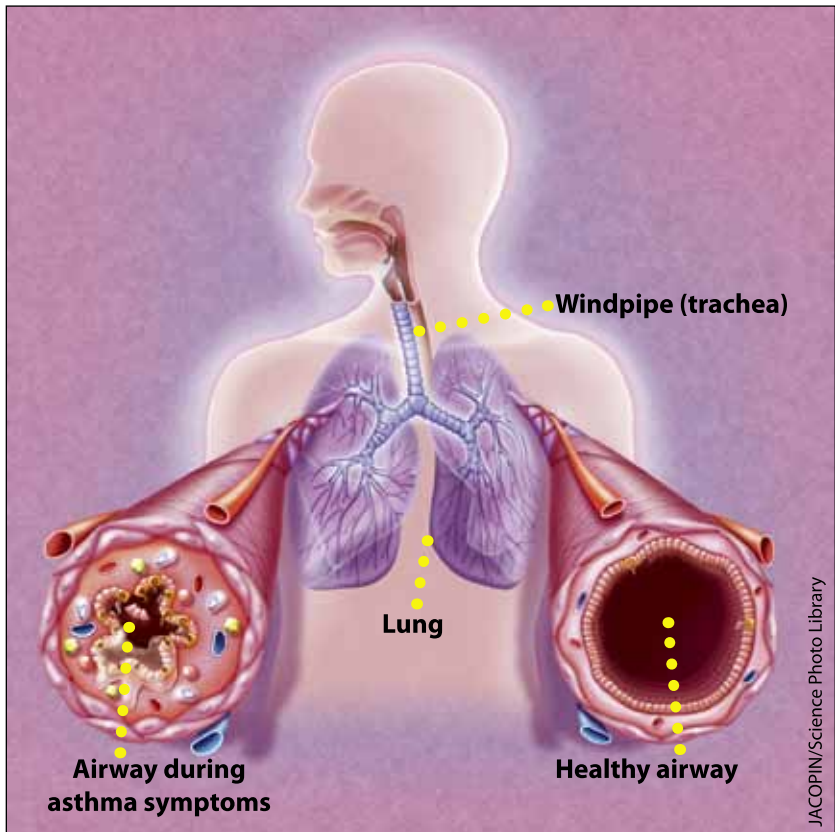
This booklet is for people who have or think they might have asthma. Your family, friends or carers may also find it useful. It aims to make you and your family aware of the treatment and care you should expect to receive. It will also help you to take control of your condition by understanding the latest research evidence.

The booklet is based on guidance from the British guideline on managing asthma which was developed by the British Thoracic Society and the Scottish Intercollegiate Guidelines Network (SIGN). Your doctor or asthma nurse should be following this guidance when looking after your asthma.

The booklet covers:

- ⊙ diagnosis;
- ⊙ who will be involved in looking after your asthma;
- ⊙ medicines;
- ⊙ how you can help control your asthma;
- ⊙ asthma attacks;
- ⊙ asthma in young people;
- ⊙ how asthma is controlled during pregnancy;
- ⊙ work-related asthma; and
- ⊙ where to find out more about asthma.

If you would like to see a full version of the guidance, please visit [www.sign.ac.uk/pdf/sign101.pdf](http://www.sign.ac.uk/pdf/sign101.pdf)



## What is asthma?

Asthma is a condition that affects your airways (the small tubes that carry air in and out of your lungs). You can get asthma at any age and it is hard to say what causes it.

If you have asthma you may find that you sometimes have asthma symptoms. Asthma symptoms could be:

- ⊙ coughing a lot;
- ⊙ wheezing (a noisy whistling sound in your chest);
- ⊙ difficulty in breathing; and
- ⊙ tightness in your chest.

You might have all of these symptoms or you might only have some of them. Asthma symptoms may come and go. You may find you have symptoms at different times of the day or even different times of the year.

Some things can make your asthma worse. They are called asthma triggers. Examples of common asthma triggers are dust, pets, pollen, cigarette smoke and changes in the weather. Everyone has different asthma triggers and most people have more than one trigger.

When a person with asthma comes into contact with their asthma trigger (or triggers) a few things happen.

- ⦿ The muscles around the walls of their airways become tighter.
- ⦿ Their airways become swollen and inflamed.
- ⦿ Sometimes sticky mucus (or phlegm) builds up.

All of this leads to asthma symptoms and makes it harder to breathe.

# Diagnosing asthma in adults

## *How will my doctor know I have asthma?*

You will need to see your doctor to find out if you have asthma. Asthma can be difficult to diagnose as you might not have symptoms when you see your doctor. Your doctor will ask you if you have any asthma symptoms. On page 3 there is a list of asthma symptoms you may have.

Your doctor will ask you more about your symptoms, particularly:

- ⦿ if your asthma symptoms are worse at night or in the early morning;
- ⦿ if your asthma symptoms are worse when you exercise;
- ⦿ what you think your asthma triggers are; and
- ⦿ if you have asthma symptoms after taking aspirin or beta blockers. Beta blockers are drugs that lower your blood pressure and treat heart conditions.

Your doctor will also:

- ⦿ ask you if you have any history of allergic conditions such as hayfever or eczema;
- ⦿ ask you if anyone else in your family has asthma or a history of other allergic conditions such as hayfever, eczema or food allergies;
- ⦿ listen to your chest; and
- ⦿ do some breathing tests to see how well your lungs are working. These are sometimes called lung function tests and the main one is called spirometry. You can read more about spirometry on page 6.

## *What if my doctor thinks I have asthma?*

If your doctor thinks that you do have asthma, they will give you asthma medicine to try. This is known as a treatment trial. If that medicine doesn't work, your doctor will try you on some other asthma medicines. This may be inhalers or tablets or both. Your doctor should do some more breathing tests with you (peak expiratory flow or spirometry).

Peak expiratory flow involves using a small device called a peak flow meter which measures how fast you can blow air out of your lungs. Spirometry is done using a machine called a spirometer which measures the amount and speed of air that you can blow out. The photographs below show someone with asthma having spirometry and peak expiratory flow tests.



If the readings on the spirometer or peak flowmeter are lower than expected, it will help your doctor to diagnose asthma. However, it is important to know that, because asthma comes and goes, sometimes the readings may be normal. This does not necessarily mean that you do not have asthma.

If you don't respond well to different treatments, your doctor can carry out more tests.

### *What if my doctor is not sure that I have asthma?*

If your doctor is not certain that you have asthma, you may be given a reversibility test or medicines for a set period of time to see if they work (or both). A reversibility test involves testing your breathing using a spirometer or peak flowmeter before and after you take asthma medicines. Your doctor may ask you to do a spirometry test during a treatment trial. They will then give you some treatment for a longer time. This will either be:

- ⊙ a preventer inhaler (steroid inhaler) twice a day for six to eight weeks; or
- ⊙ a two-week course of prednisolone (steroid tablets). When you are given this for the reversibility test, the recommended dose is 30 mg of prednisolone which you will need to take every morning for two weeks.

Once you have finished the course of treatment, you will need to go back to your doctor for another breathing test. If your breathing has improved, your doctor will treat you for asthma.

If there is no improvement after the reversibility test or if the treatment trial is not helping, your doctor may consider testing you for other conditions. This may involve giving you a chest X-ray, heart tests, more detailed breathing tests (lung function tests), blood tests and skin-prick tests if your doctor thinks these would help to diagnose your condition. If your doctor thinks it's necessary, they may refer you to a specialist.

## How will my doctor or nurse help me look after my asthma?

Your doctor or asthma nurse will help you to look after your asthma. You should go for an asthma review at least once a year. This is to talk about how you are managing your asthma and to make sure your asthma is as controlled as well as it can be. In an asthma review your doctor or asthma nurse should ask you a set of questions about your asthma.

Here is an example set of questions recommended by the Royal College of Physicians.

- ⦿ Have you had difficulty sleeping because of your asthma symptoms (including cough)?
- ⦿ Have you had your usual asthma symptoms during the day (coughing, wheezing, chest tightness or breathlessness)?
- ⦿ Has your asthma prevented you from doing your usual activities (for example, housework)?

Similar questions are included in the Asthma Control Test (ACT) which asks you five questions about how you keep your asthma under control. You can read more about this or take the test on Asthma UK's website at [www.asthma.org.uk/applications/control\\_test](http://www.asthma.org.uk/applications/control_test)

Your doctor or asthma nurse should also ask you specific questions such as 'How many days a week do you use your blue inhaler?'. It may be a good idea to make a note of your good and bad days and take the notes with you to your asthma review.

Your doctor or nurse may also ask you if your asthma symptoms have caused problems with your everyday activities. The answers you give will help your doctor or asthma nurse decide the best treatment for you.

Your doctor or asthma nurse should also check and record the following.

- ⦿ Your breathing (lung function) using spirometry or a peak flowmeter (see page 6). If your lung function is lower than before, it may suggest that your asthma is getting worse and your doctor will need to do a detailed assessment.
- ⦿ Whether you have had any asthma attacks, how many courses of steroid tablets you have had since your last asthma review and if you have had any time off work since your last asthma review.
- ⦿ How well you take your inhaler and spacer (if you use one). They will check this by watching you take it.
- ⦿ How many inhalers and medicines you have been prescribed since your last asthma reviews.
- ⦿ Whether you have a personal asthma action plan and, if so, that you know how to use it. There is more information about this on page 20. If you haven't got a personal asthma plan, they should write one with you.

If you feel your asthma is not well controlled, don't be afraid to ask for an asthma review at any time. You don't have to wait for your regular asthma review.

About 5% to 10% of people with asthma in the UK have severe asthma. This is also sometimes called difficult-to-treat asthma or brittle asthma. People with severe asthma are usually looked after by a hospital specialist and are likely to have more asthma reviews.

## What medicines can help control asthma?

Your doctor or asthma nurse will give you medicines to help you control your asthma. Usually, with the right medicines, you should:

- ⊙ have no asthma symptoms during the day;
- ⊙ not be woken up at night because of your asthma;
- ⊙ not need to take your reliever inhaler; and
- ⊙ not have asthma attacks.

Having the right medicines will also mean your asthma will not interfere with your daily life (including exercise) and your breathing tests (peak flow and spirometry) will be normal.

It can sometimes take a bit of time to find the right asthma medicines for you. Your doctor may have to try you on a few different inhalers and medicines to get your asthma under control.



## What medicines will be used to help my asthma?

Asthma medicines		
Type of medicine	When it should be used	How it helps
<p>Reliever inhaler (usually blue)</p> <p>This is also sometimes called a short-acting reliever.</p> <p><b>Everyone with asthma should be given a reliever inhaler.</b></p>	<ul style="list-style-type: none"> <li>When you feel your asthma symptoms start for example, when you start to cough or wheeze.</li> <li>You should only take your reliever inhaler when you get your asthma symptoms.</li> </ul>	<ul style="list-style-type: none"> <li>It helps relieve your asthma symptoms for a few hours.</li> <li>Reliever inhalers don't treat asthma – they temporarily open up your airways by relaxing the muscles that surround them, allowing you to breathe more easily.</li> </ul>
<p>Preventer inhaler (usually a brown, red or orange inhaler containing steroids)</p> <p><b>If you have a preventer inhaler, you should take it every day, even when you feel well, to keep your airways healthy.</b></p>	<p>You should be given a preventer inhaler if you:</p> <ul style="list-style-type: none"> <li>have had an asthma attack in the last two years;</li> <li>use your reliever inhaler three times a week or more;</li> <li>have asthma symptoms three times a week or more; and</li> <li>wake up at least one night a week because of your asthma.</li> </ul> <p>You have to take most preventer inhalers twice a day. Once your asthma is well controlled, your doctor may tell you to take your preventer inhaler once a day</p>	<p>Preventer inhalers are the main treatment for asthma. They can take some time to work. They reduce the inflammation in your airways and prevent future asthma symptoms.</p> <p>Smoking stops your preventer inhaler from working properly, so if you smoke or used to smoke, your doctor may need to give you a higher dose of preventer inhaler.</p>
<p>Combination inhaler (one inhaler that acts as both preventer and reliever)</p>	<p>Your doctor will tell you to take your combination inhaler twice a day and when you get your asthma symptoms.</p>	<p>Combination inhalers can be used to relieve your asthma symptoms as well as reduce the inflammation in your airways.</p>

Your doctor may consider trying you on other medicines to help control your asthma. These may include some of the medicines in the table below.

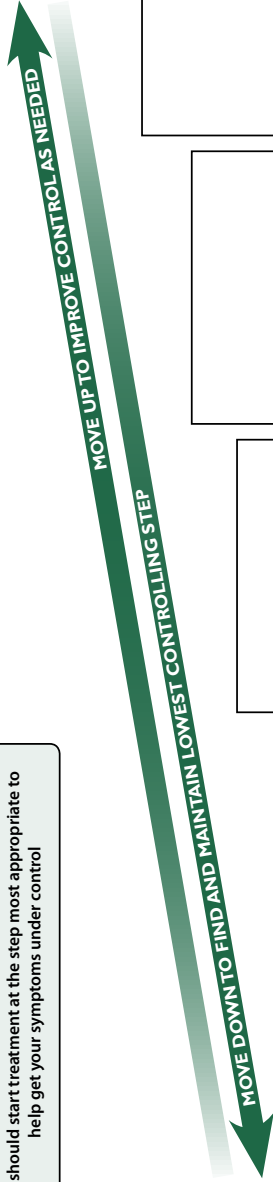
Other asthma medicines	
Medicine	How it helps
<p>Long-acting reliever inhaler</p> <p>It contains a reliever medicine that lasts for 12 hours. <b>It does not contain steroids but you should always take it with a preventer inhaler.</b></p>	<p>Long-acting reliever inhalers open up your airways by relaxing the muscles that surround them.</p>
<p>Leukotriene receptor antagonists</p> <p>These are preventer tablets. They do not contain steroids.</p>	<p>These work by blocking one of the chemicals that is released when you come into contact with an asthma trigger.</p>
<p>Theophylline</p> <p>This medicine is available as tablets, syrup and injection. It does not contain steroids.</p>	<p>Theophylline works by relaxing the muscles that surround your airways. This makes it easier for you to breathe.</p>
<p>Reliever tablets</p> <p>These tablets release a reliever medicine slowly. They do not contain steroids.</p>	<p>These work by opening up your airways by relaxing the muscles that surround them.</p>
<p>Steroid tablets</p>	<p>Steroid tablets work by calming your inflamed airways.</p>

### *How will my doctor or asthma nurse decide which medicines I need?*

When your doctor or asthma nurse decides what medicines to give you, they use a 'stepwise' approach. There are five main steps (treatment levels) and you can record the medicines you are taking at each step on the diagram on page 13.

Your doctor will assess your asthma and start you at the most appropriate step for you. If that doesn't help you, they may move up to the next step.

You should start treatment at the step most appropriate to help get your symptoms under control



STEP 5

STEP 4

STEP 3

STEP 2

STEP 1

## *Stepping up your medicines*

Before giving you more asthma inhalers and medicines, your doctor should always:

- ⦿ check that your symptoms are caused by your asthma;
- ⦿ check that you are taking your current asthma medicine correctly;
- ⦿ check how you are taking your inhaler; and
- ⦿ discuss with you your asthma triggers and possible ways to avoid them.

## *Stepping down your medicines*

Once your asthma is well controlled, it is important that you still regularly see your doctor for an asthma review. If your asthma has been controlled for a while (usually at least three to six months), your doctor may suggest that you move down a step to see if your symptoms will stay controlled on a lower dose of medicine. When deciding which medicine to step down first, you and your doctor must consider:

- ⦿ how well controlled your asthma has been on your current medicines;
- ⦿ how long you have been taking your current medicines for;
- ⦿ the side effects of current treatment; and
- ⦿ how you feel about the medicines you're on.

When your asthma medicines are stepped down, you should do this slowly.

## *How do I take my asthma medicines?*

It is important that you take your inhalers properly to make sure you are getting the most benefit from them. When you are first given inhalers, your doctor or asthma nurse should show you how to use them. They should then regularly check how you are taking them to make sure you are doing it correctly. Your local pharmacist will also be able to show you how to use your inhaler correctly. You can watch a demonstration of how to use your inhaler and spacer on Asthma UK's website at [www.asthma.org.uk/inhalerdemo](http://www.asthma.org.uk/inhalerdemo).



## Spacers and inhalers

You may be given a spacer to take your inhalers with.

Spacers help to deliver the medicine to your airways. They are plastic or metal containers with a mouthpiece or mask at one end and a hole for your inhaler at the other.

In adults with asthma that is well controlled, a pressurised metered-dose inhaler (pMDI) with a spacer is as effective as any other hand-held inhaler. However, you may prefer a dry powder inhaler (DPI).

A dry powder inhaler is similar to the pressurised metered-dose inhaler but the medicine is in powder form rather than liquid form.

Your doctor should discuss the different reliever inhalers with you and should take your preferences into account.

## *What are the side effects of my asthma medicines?*

### **Reliever medicine**

Reliever inhalers have very few side effects but they can temporarily increase your heartbeat or give you mild muscle shakes. These effects are more common if you are taking a high dose. They wear off within a few minutes or a few hours at the most.

### *Preventer inhalers*

The possibility of side effects from taking your preventer medicine is low, but there is a small risk of side effects including:

- ⊙ sore tongue;
- ⊙ sore throat;
- ⊙ hoarse voice; and
- ⊙ mouth infection (oral thrush).

Preventer inhalers have been tried and tested on lots of patients and the benefits of good asthma control outweigh the risk of side effects. To reduce the risk of side effects, you can rinse and gargle with water after using your preventer inhaler. Using a spacer with a pressurised metered-dose inhaler can also help for some people with asthma.

### *Steroid tablets*

If you have to take steroid tablets for a short time, there is a low risk of side effects but side effects can include mood swings and feeling hungrier than usual. Your doctor will only give you a short course of steroid tablets if your asthma is going through a particularly bad patch, and at these times it is much safer to have the steroids than to try to manage without them.

Although there are side effects associated with taking steroid tablets, these are outweighed by the benefit of good asthma control. Possible effects of taking steroid tablets for long periods of time include:

- ⊙ feeling depressed or having mood swings;
- ⊙ feeling hungry and wanting to eat more;
- ⊙ a fatter face;
- ⊙ feeling overactive and finding it difficult to sleep;
- ⊙ heartburn and indigestion;
- ⊙ bruising easily;
- ⊙ brittle bones;
- ⊙ risk of having diabetes and high cholesterol; and
- ⊙ risk of having cataracts.

Your doctor should discuss the benefits and side effects with you and monitor:

- ⊙ your blood pressure;
- ⊙ your bone mineral density (the amount of bone and strength of your bones) and risk of getting osteoporosis (a condition that causes your bones to become weak and more likely to break);
- ⊙ your urine or blood sugar to check for diabetes; and
- ⊙ your cholesterol levels.

When you take steroid tablets over long periods of time, your adrenal gland may stop producing your own natural steroid and you should not stop taking your steroid tablets suddenly.

If you are on steroid tablets, your doctor, asthma nurse or pharmacist should give you a steroid card to carry with you to tell other healthcare professionals what medication you are on.

### *What medicines will I be given if exercise brings on my asthma?*

You may find that exercise can trigger your asthma symptoms, especially if your asthma is not well controlled. If your asthma is well controlled by a preventer inhaler, but you find exercise to be a problem, your doctor may also consider giving you one of the following medicines.

- ⊙ Long-acting inhaled reliever medicines
- ⊙ Preventer tablets (leukotriene receptor antagonists)
- ⊙ Inhaled anti-inflammatory medicine (corticosteroids)
- ⊙ Reliever tablets
- ⊙ Tablets that relax the muscles surrounding your lungs (theophyllines)

## Can other approaches help to control my asthma?

### *Complementary therapies*

Some people like to consider complementary therapies as a way to treat medical conditions such as asthma. They can be used alongside the medicines your doctor or asthma nurse gives you.

The Buteyko technique is a system of breathing exercises taught by a Buteyko practitioner. Some people with asthma may think about trying it to control their symptoms.

You should never use complementary therapies instead of the treatments your doctor or asthma nurse has recommended. If it is something that you would like to consider, it is best to discuss it with your doctor or asthma nurse first.

### *Complementary therapies and devices which are not proven to work*

There is not enough evidence from scientific research to suggest that the complementary therapies and devices listed below can help to control your symptoms.

- ⊙ Acupuncture
- ⊙ Herbal and traditional Chinese medicine
- ⊙ Homeopathy
- ⊙ Hypnosis and relaxation therapies
- ⊙ Massage therapy
- ⊙ Air ionisers

## How can I help to control my asthma?

It is important that you keep good control of your asthma. Having good control means you:

- ⦿ have no asthma symptoms during the day;
- ⦿ are not woken up at night because of your asthma;
- ⦿ do not need to take your reliever inhaler; and
- ⦿ do not have asthma attacks.

It also means that:

- ⦿ your asthma will not interfere with your daily life including exercise; and
- ⦿ your breathing tests will be normal for example, peak flow, spirometry.

To have good control of your asthma it's important to take your asthma inhalers and medicines and, if possible, try to stay away from things that make your asthma worse (your asthma triggers such as pollen, pets and so on).



Having good asthma control reduces the risk of you having asthma attacks. You can read more about asthma attacks on page 24.

A personal asthma action plan (PAAP) is written information provided by your doctor or asthma nurse to help you understand more about your asthma and how to control it. It is sometimes called a self-management plan and your doctor or asthma nurse will draw it up with you.

People who have a personal asthma action plan are more likely to have better control over their asthma than people who don't. This means that they have fewer asthma symptoms, are less likely to have an asthma attack and are less likely to have to go to hospital because of their asthma.

Your personal asthma action plan should contain information on:

- ⦿ your medicines (for example, what you take and when);
- ⦿ how to recognise when your asthma is getting worse;
- ⦿ what to do when your asthma is getting worse; and
- ⦿ what to do if you have an asthma attack.

### *When should I receive my personal asthma action plan?*

Your doctor or asthma nurse should draw up your plan with you when you are diagnosed as having asthma, and it should include your preferences and opinions. You will be able to discuss it with them at your asthma review. It is important that you understand and agree with your action plan. Your doctor or asthma nurse should also go through it with you at other times when discussing your asthma with you.

If you have to go into hospital because of your asthma, you should receive a personal asthma action plan before you leave hospital.

It is very important for you to have a personal asthma action plan. Speak to your doctor or asthma nurse if you haven't got one.

You can also order a personal asthma action plan from Asthma UK by visiting [www.asthma.org.uk/beincontrol](http://www.asthma.org.uk/beincontrol)

The table below explains some ways you can help to control your asthma.

What can I do to control my asthma?	How can this help?
<p>Take your asthma medicine regularly in line with your asthma action plan.</p> <p>Learn about your asthma from your doctor or asthma nurse. It is important that they give you all the information you need. They should ask you if you have any worries and you should tell them if you have any concerns. To help you control your asthma they should give you simple information (face-to-face or written information (or both), especially about your asthma medicines.</p>	<p>For good asthma control it is important that you take your medicines, even when you feel well. Many people live with troublesome asthma symptoms (coughing, wheezing and so on) and think this is normal.</p> <p>Good asthma control means you have no asthma symptoms day or night and you rarely need to use your reliever inhaler. If you have asthma symptoms quite often, it can lead to an asthma attack and long-term damage to your lungs.</p>
<p>Stay away from cigarette smoke.</p>	<p>Smoking or being around cigarette smoke makes your asthma worse. If you smoke, you should try to stop. If you would like to stop, your doctor, asthma nurse or pharmacist can offer you advice and support to help you.</p>
<p>Consider taking action to reduce the number of house dust mites in your home. House dust mites are small creatures that live in mattresses and fabric around the home.</p> <p>However, most of the evidence suggests that it is not possible to make a big difference to asthma control in this way.</p>	<p>If you are allergic to house dust mites, it can make your asthma worse. It is very difficult to reduce the number of house dust mites enough to stop asthma symptoms. If you are allergic to them you could try:</p> <ul style="list-style-type: none"> <li>• using special mattress covers;</li> <li>• removing the carpets in your home;</li> <li>• removing soft toys from beds;</li> <li>• washing bed linen on a hot wash (50 degrees);</li> <li>• using products that kill dust mites on areas such as bedding and curtains; and</li> <li>• making sure your home is well ventilated.</li> </ul>
<p>Try to lose weight.</p>	<p>If you are overweight, your doctor or asthma nurse will encourage you to lose weight. Losing weight will help improve your asthma control.</p>

There has been concern that some vaccinations, such as the flu jab, may trigger your asthma symptoms. You should still have the vaccinations as the benefits of the vaccine outweigh the risks of triggering your asthma. If you are on high-dose steroids for your asthma, the vaccine may not be as effective so you need to speak to your doctor about this.

There is not enough scientific research evidence to suggest that the following can help to control asthma.

- ⦿ Fish-oil supplements (capsules containing fish oils)
- ⦿ Antioxidants (substances that may protect your body's cells against harmful effects when your body breaks down food or comes into contact with smoke)
- ⦿ Probiotics (foods containing 'friendly' bacteria, such as yogurt drinks)

## What happens during an asthma attack and how will it be treated?

Although asthma can usually be controlled with medicines, sometimes triggers can lead to asthma attacks which can occasionally be serious.

An asthma attack is when your airways become swollen and the muscles around the airways become very tight which makes it harder to breathe. Asthma attacks do not usually come out of the blue, you will probably feel your asthma getting worse over a few days before the attack (for example, you may be coughing and wheezing more or your chest may start to feel tight). An asthma attack is also known as acute asthma.

### *How will I know that I am having an asthma attack?*

You are having an asthma attack if any of the following happen.

- ⦿ Your asthma is getting worse (for example, you are coughing or wheezing more than usual or you feel more breathless or your chest feels tighter)
- ⦿ You cannot breathe well and it is hard to talk, eat or sleep
- ⦿ Your reliever inhaler is not helping as much as usual
- ⦿ You need to use your reliever inhaler more often than usual

## **IF YOU ARE HAVING AN ASTHMA ATTACK YOU SHOULD DO THE FOLLOWING.**

- 1.** Take one to two puffs of your reliever inhaler immediately. (This is usually a blue inhaler.)
- 2.** Sit up and try to take slow steady breaths.
- 3.** If you do not start to feel better, continue to take two puffs (one at a time) of your reliever inhaler every two minutes. You can take up to 10 puffs.
- 4.** If you do not feel better after taking your inhaler as described above, or if you are worried, call 999. If an ambulance does not arrive within 10 minutes and you are still not feeling any better, repeat step 3 above.

Do not be afraid of causing a fuss, even at night. If your asthma feels better and you do not need to call 999, you still need to see a doctor or asthma nurse that day. Check your asthma action plan and follow the advice you have been given.

It will be helpful for you to carry an asthma attack card with you. This has been designed to inform or remind people with asthma, and their family and friends, what to do in an asthma attack. You can order a card from Asthma UK by visiting [www.asthma.org.uk/order\\_your\\_free\\_asth.html](http://www.asthma.org.uk/order_your_free_asth.html)

### *Will I need to go to hospital if I have an asthma attack?*

You don't always have to go to hospital if you have had an asthma attack. A lot of the time people only need to go into hospital if their asthma attack was caused by a viral infection.

Sometimes an asthma attack can be so bad that you can die from it. This is very rare, but if you are showing signs of serious life-threatening asthma, you should be looked after by a hospital specialist.

You should have appointments with a hospital specialist for at least a year if your asthma attack was so severe that you had to go into hospital.

### *Before you leave hospital*

To help decide when you are well enough to leave hospital, your hospital doctor will check your breathing with a peak flowmeter regularly to see if it improves. They will also discuss with you how to look after your asthma. This will include helping you to monitor your asthma using a peak flowmeter or keeping a symptom diary, checking how you take your inhaler and, most importantly, giving you a written personal asthma action plan.

You can read more about personal asthma action plans on page 20.

The hospital should tell your GP about your treatment in hospital and they should arrange a follow-up appointment at the hospital for you within a month. You should make an appointment with your GP within 48 hours of leaving hospital.

## What treatment will I be given if I have an asthma attack?

The table below describes the medicines that are used to treat asthma attacks and how they help.

Treatment	How the medicine is given	
Oxygen	If your oxygen levels are low, you will be given oxygen through a mask.	 A photograph of an elderly man with a white beard wearing a clear oxygen mask over his nose and mouth. He is looking slightly to the right.
Reliever medicine	<p>You will be given a high dose of reliever medicine either through an inhaler and spacer or through a nebuliser. A nebuliser creates a mist of medicine which you breathe in through a mask.</p> <p>Occasionally in hospital you may be given reliever medicine through a drip or given a nebuliser very often.</p> <p>You may be given another reliever medicine in the nebuliser if your asthma attack is severe or is not responding to the first reliever medicine alone.</p>	 A photograph of a woman with dark hair using a nebuliser. She is holding the device to her mouth and breathing in. The nebuliser is connected to a tube.
Steroid tablets	You will be given steroid tablets for at least five days or until you have recovered from your asthma attack.	 A photograph of a brown pill bottle lying on its side with several red, round tablets spilled out onto a light-colored surface.
Magnesium sulphate	You may be given this through a drip if you have life-threatening asthma or if you have had a severe asthma attack and high doses of reliever medicine don't work.	
Aminophylline	In hospital, your specialist may give you this medicine through a drip.	

## Asthma during pregnancy

### *What should I do if I have asthma and I am thinking of becoming pregnant?*

If you are planning to try for a baby, you should tell your doctor. They will advise you to keep taking your asthma medicines and should reassure you that it is safe to do so. Your doctor will monitor you closely so that if your asthma gets better or worse they can change the amount of medicine you take.

If you smoke, your doctor will tell you about the dangers of smoking to you and your baby. They will advise you to stop smoking and will offer you support to do this.

### *What will happen if I have an asthma attack when I am pregnant?*

Having an asthma attack when you are pregnant is an emergency. If you are having a severe asthma attack, you should be treated in hospital.

While you are in hospital you will be given the same medicines that you would be given if you were not pregnant. You can read about these medicines on page 27. You will also be given oxygen to help your breathing, and your baby's heart rate will be monitored.

If you have an asthma attack and need to go hospital, you should be seen regularly by a hospital respiratory doctor (a doctor that specialises in breathing-related conditions) and an obstetrician (a doctor who specialises in caring for women who are pregnant) for the rest of your pregnancy. They will help you to control your asthma during your pregnancy.

### *Is it safe to take asthma medicines while I am pregnant?*

It is safe to take medicines used to treat asthma while you are pregnant. You may be given the following medicines while you are pregnant.

- ⊙ A reliever inhaler
- ⊙ A preventer inhaler
- ⊙ Long-acting reliever inhalers
- ⊙ Theophylline (a medicine that is given in tablet form or through a drip to relax your airways)
- ⊙ Steroid tablets
- ⊙ Inhaled anti-inflammatory medicine (chromones)

If you are taking theophylline you should have your blood levels checked regularly. This is to make sure that they stay within the normal range.

Leukotriene receptor antagonist tablets are a preventer medicine. Your doctor should not start you on leukotriene antagonist tablets when you are pregnant. However, if you have been taking this medicine before you were pregnant and it was helping your asthma, your doctor should advise you to continue taking it.

If you have a severe asthma attack while you are pregnant, it is important that your doctor gives you a short course of steroid tablets to help you. It is much safer for you and your baby to control the severe asthma attack quickly, and steroid tablets are the best way of doing this.

### *Is there a risk that I will have an asthma attack during labour?*

It is unusual to have an asthma attack during labour. When you are in labour, your body produces natural steroid hormones which help to prevent asthma attacks. If you do get asthma symptoms during labour, you can use your normal asthma medicine. If you need to have a Caesarean section, it is better to have an epidural rather than a general anaesthetic.

## *Breastfeeding*

All women are encouraged to breastfeed their babies whether they have asthma or not. You can still take your asthma medicines when you are breastfeeding as they will not harm your baby.

You can find out more about asthma and pregnancy from Asthma UK by visiting [www.asthma.org.uk/all\\_about\\_asthma/factfiles/index.html](http://www.asthma.org.uk/all_about_asthma/factfiles/index.html)

## *Diet*

There is not enough evidence to suggest that avoiding certain foods or taking dietary supplements while you are pregnant can prevent your child from developing asthma.

## *Immunisations*

Immunisations are the vaccinations your child will be given by a doctor or nurse as they are growing up. There is no evidence that having these immunisations increases the risk of your child developing asthma. It is important that your child has vaccinations to help protect them against infectious diseases.

## Asthma in young people

This section has been written for teenagers to read with their parents or carers.

Adolescence is the time when you are moving from childhood into adulthood. During this time you are becoming more independent but it can be a challenging time for you. You may think that having asthma can make things more difficult for you and it is quite normal if you feel anxious or depressed. If you do feel anxious or depressed you should speak to your GP or asthma nurse.

You can also find information from Asthma UK at [www.youtube.com/watch?v=QYK5e2y\\_G6k](https://www.youtube.com/watch?v=QYK5e2y_G6k) and [www.asthma.org.uk/all\\_about\\_asthma/asthma\\_young\\_adults/depression.html](http://www.asthma.org.uk/all_about_asthma/asthma_young_adults/depression.html)

As you get older, your doctor will encourage you to take more responsibility for your asthma by seeing you on your own, without your parents or carers, for part of the time. Your written asthma plan developed between you and your doctor allows you to take control of your asthma by taking on responsibility and making some choices for yourself. Some of the questions below will help you and your doctor to know that you are able to look after your asthma.

- ⦿ Can you tell what things make your asthma worse?
- ⦿ What medicines do you take for it?
- ⦿ Do you know what each medicine does to help you?
- ⦿ How easy is it to remember to take your medicine?
- ⦿ If your doctor or asthma nurse asks you questions about your asthma, how do you describe it?
- ⦿ When you need to go and see your doctor or asthma nurse, how do you make arrangements to do this?
- ⦿ If you find you are unable to keep an appointment you have made with your doctor or asthma nurse, do you know how to cancel it?
- ⦿ How do you make sure you arrange new prescriptions before your medicine runs out?

Your doctor will discuss your treatment preferences with you (for example, which inhaler suits you best). Your doctor should also ask you if you find it easy to use your inhaler in places you might need to use it such as school or if you are out with friends. Your doctor should teach you how to use your inhaler and check that you are using it correctly. If you need to use a spacer with your reliever inhaler when you're at home, your doctor should consider giving you a different reliever inhaler device that's easier for you to carry around and use when you are out and about. When your doctor is giving you advice on controlling your asthma, they should take account of your own needs. This means:

- ⊙ offering you help and advice on coping with your feelings;
- ⊙ teaching you what you need to know in a respectful and encouraging way;
- ⊙ discussing information that is personal to you and offering you written copies of this; and
- ⊙ teaching you in an appropriate place.

Your school should work with you to help you control your asthma. It is important that you keep your school up to date with changes in your medication, for example what you take and how much. There might be other children in your school who you could share information about asthma with. This is known as peer support and if your school doesn't currently offer it, Asthma UK can help support your school. Ask your teacher to visit [www.asthma.org.uk/how\\_we\\_help/schools\\_early\\_years](http://www.asthma.org.uk/how_we_help/schools_early_years).

### *Smoking and cigarette smoke*

You are at a time in your life where you should be making choices and learning from your mistakes. Never feel pressurised to smoke just because your friends do it. It is important to know about the effects smoking has on your asthma and the rest of your health. For example, smoking:

- ⊙ increases the risk of asthma attacks;
- ⊙ permanently damages your airways; and
- ⊙ reduces the benefits of your asthma medicines.

If you do smoke, your doctor or asthma nurse should offer you advice and support to help you stop. Living with someone who smokes may also affect your condition. If your parents or carers smoke, they should also be encouraged to stop so you don't have to breathe in their cigarette smoke.

Don't be afraid to discuss with your doctor, asthma nurse or parents how you feel if any of the above issues concern you.

### *Complementary therapies*

Some people like to consider complementary therapies as a way to treat medical conditions such as asthma. You should never use them instead of the treatments your doctor or asthma nurse has recommended. Always tell your doctor or asthma nurse if you are using any complementary therapies.

### *What should happen as I get older?*

If you are under the care of a specialist, as you get older, you will need health services that are designed to look after people in your age group. You will become more involved in managing your asthma. To make this easier, there should be a clear plan about what should happen. In most cases, looking after your asthma will involve your local GP. Only a few young people need to go to hospital. You, your family and other people who help manage your asthma should be involved in the decisions about how and when you will move from child services to adult services.

### *Will having asthma affect my career choice?*

Your doctor or asthma nurse should discuss future career choices with you and tell you which jobs might increase your risk of work-related asthma symptoms. This is known as 'occupational asthma'.

You can read more about occupational asthma on page 34.

## What is occupational asthma?

Some jobs put you into contact with substances that can cause asthma. This is called 'occupational asthma'. These substances include things like wood dust, dust from flour and grain, latex and dust from insects and animals. Examples of jobs which can cause occupational asthma include joinery, spray painting, laboratory work or any job which involves using latex gloves such as nursing or dentistry.

### *How is occupational asthma diagnosed?*

If you develop asthma as an adult or if you used to have asthma as a child and it returns, your doctor should consider whether substances at your workplace are causing it. If your doctor thinks your asthma is caused by your workplace they will ask you the following questions.

- ⦿ Is your asthma better on your days off work?
- ⦿ Is your asthma better when you are on holiday?

If you answer yes to these questions, your doctor will start to investigate whether you have occupational asthma. This can be difficult, and most doctors will refer you to a specialist to confirm the diagnosis.

Before your specialist can confirm that your asthma is caused by a substance at your work, they will ask you to measure your breathing using a peak flowmeter at different times throughout the day. You should take at least four readings a day for four weeks. Your specialist will tell you to use your peak flowmeter at times when you are at work and times when you are not at work. If your breathing improves when you are away from work, it is likely that you have occupational asthma.

If your specialist confirms that your asthma is related to your workplace, they will advise you to avoid the substance at work that is causing your asthma.

You should discuss with your employer whether it's possible to remove the substance from your workplace or if you can move somewhere else at work to be away from the substance. This should happen as soon as you are diagnosed or within the 12 months of starting to have your asthma symptoms at work.

For more information visit [www.asthma.org.uk/all\\_about\\_asthma/asthma\\_at\\_work/occupational\\_asthma.html](http://www.asthma.org.uk/all_about_asthma/asthma_at_work/occupational_asthma.html)

## Where can I find out more information about asthma?

### *National organisations for people who have asthma*

#### **Asthma UK**

Summit House, 70 Wilson Street

London EC2A 2DB

Phone: 020 7786 4900

Asthma UK Adviceline - speak to an asthma nurse specialist: 0800 121 62 44

Website: [www.asthma.org.uk](http://www.asthma.org.uk)

Asthma UK is the charity dedicated to improving the health and well-being of people who are affected by asthma. They offer a range of information on asthma including fact sheets and booklets.

#### **British Lung Foundation**

73-75 Goswell Road

London EC1V 7ER

Helpline: 08458 50 50 20

Phone: 020 7688 5555

Fax: 020 7688 5556

Website: [www.lunguk.org](http://www.lunguk.org)

The British Lung Foundation aims to help people understand and live with lung disease. They run the Breathe Easy support network which offers information, support and friendship to anyone affected by lung disease.

## *Other organisations*

### **Allergy UK**

Planwell House, Lefa Business Park, Edgington Way

Sidcup

Kent DA14 5BH

Helpline: 01322 619898

Fax: 01322 470 330

Website: [www.allergyuk.org](http://www.allergyuk.org)

Allergy UK is a charity which aims to increase people's understanding and awareness of allergies, and helps people manage their allergies.

### **ASH (Action on smoking and health)**

First Floor, 144-145 Shoreditch High Street

London E1 6JE

Phone: 020 7739 5902

Fax: 020 7729 4732

Website: [www.ash.org.uk](http://www.ash.org.uk)

ASH is the leading voluntary organisation campaigning for effective tobacco-control legislation and providing an expert information service.

### **NHS Direct**

Phone: 0845 4647 (24 hours)

Website: [www.nhsdirect.nhs.uk](http://www.nhsdirect.nhs.uk)

This is a 24-hour helpline for people in England and Wales. It is led by nurses who provide confidential health-care advice and information 24 hours, 365 days a year.

## **NHS 24**

Phone: 0854 24 24 24

Website: [www.nhs24.com](http://www.nhs24.com)

This is a 24-hour helpline for people in Scotland. It is led by nurses who provide confidential health-care advice and information 24 hours, 365 days a year.

### *Useful publications*

Guide to good asthma care for adults and children with asthma

Website: [www.asthma.org.uk/scotland/guide.html](http://www.asthma.org.uk/scotland/guide.html)

### *Useful websites*

#### **Department for Work and Pensions (DWP)**

Website: [www.dwp.gov.uk](http://www.dwp.gov.uk)

The website can give you details of state benefits you may be entitled to.

#### **Healthtalkonline**

Website: [www.healthtalkonline.org](http://www.healthtalkonline.org)

Healthtalkonline lets you share in other people's experiences of health and illness. You can watch or listen to videos of interviews, read about people's experiences and find reliable information about conditions, treatment choices and support.

## What is SIGN?

The Scottish Intercollegiate Guidelines Network (SIGN) writes guidelines which give advice to health-care professionals, patients and carers about the best treatments that are available.

We write these guidelines by working with health-care professionals, other NHS staff, patients, carers and members of the public.

The guidelines are based on the most up-to-date scientific evidence. You can read more about us by visiting [www.sign.ac.uk](http://www.sign.ac.uk)

### *Other formats*

If you would like a copy of this booklet in another language or another format, such as in large print, please phone Karen Graham, Patient Involvement Officer on 0131 623 4740, or e-mail [karen.graham2@nhs.net](mailto:karen.graham2@nhs.net)





## IF YOU ARE HAVING AN ASTHMA ATTACK YOU SHOULD DO THE FOLLOWING.

1. Take one to two puffs of your reliever inhaler immediately. (This is usually a blue inhaler.)
2. Sit up and try to take slow steady breaths.
3. If you do not start to feel better, continue to take two puffs (one at a time) of your reliever inhaler every two minutes. You can take up to 10 puffs.
4. If you do not feel better after taking your inhaler as described above, or if you are worried, call 999. If an ambulance does not arrive within 10 minutes and you are still not feeling any better, repeat step 3 above.

Do not be afraid of causing a fuss, even at night. If your asthma feels better and you do not need to call 999, you still need to see a doctor or asthma nurse that day. Check your asthma action plan and follow the advice you have been given.



[www.healthcareimprovementscotland.org](http://www.healthcareimprovementscotland.org)

Edinburgh Office | Elliott House | 8-10 Hillside Crescent | Edinburgh | EH7 5EA  
Telephone 0131 623 4300 Fax 0131 623 4299

Glasgow Office | Delta House | 50 West Nile Street | Glasgow | G1 2NP  
Telephone 0141 225 6999 Fax 0141 248 3776

The Healthcare Environment Inspectorate, the Scottish Health Council, the Scottish Health Technologies Group, the Scottish Intercollegiate Guidelines Network (SIGN) and the Scottish Medicines Consortium are key components of our organisation.



[www.sign.ac.uk](http://www.sign.ac.uk)