

# Managing asthma in children

A booklet for parents, carers, and family members



British  
Thoracic  
Society

We would like to thank everyone who contributed to this booklet.

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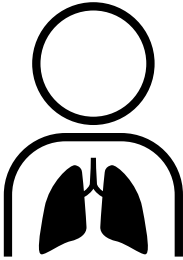
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# Who is this booklet for?

**This booklet is for you if:**

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**You have a child who has or might have asthma.**

**or**

**You are a family member or carer of someone who has or might have asthma.**

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**The booklet explains:**

- diagnosis
- who will be involved in looking after your child's asthma
- medicines
- how you can help control your child's asthma
- asthma attacks
- asthma in young people, and
- where to find out more about asthma.

# What is this booklet about?

**This booklet explains the recommendations in the clinical guideline produced by the British Thoracic Society and the Scottish Intercollegiate Guidelines Network (SIGN) about the care and treatment of children with asthma.**

The clinical guideline is based on what we know from current medical research. It also gives advice based on the opinion of healthcare professionals who are trained on how best to treat your child's asthma.

Your child's doctor or asthma nurse should be following this guideline when looking after your child's asthma.

On page 56 you can find out more about SIGN and how we produce guidelines.

**There are four different types of recommendations in this booklet.**



**Strong**

**recommendation**

based on good-quality  
research evidence



**Recommendation**

based on the  
research evidence



**Recommendation**

based on clinical  
experience



**Not enough**

**research evidence**

to tell us if something  
is of benefit

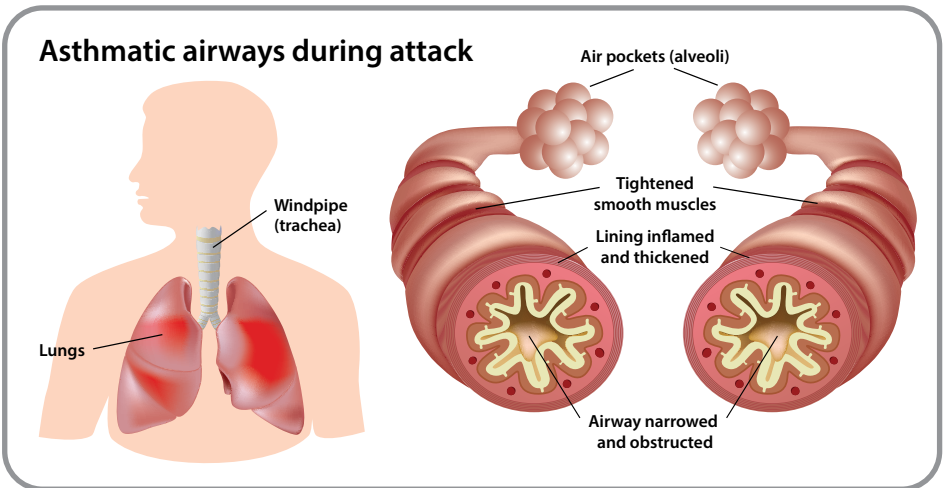
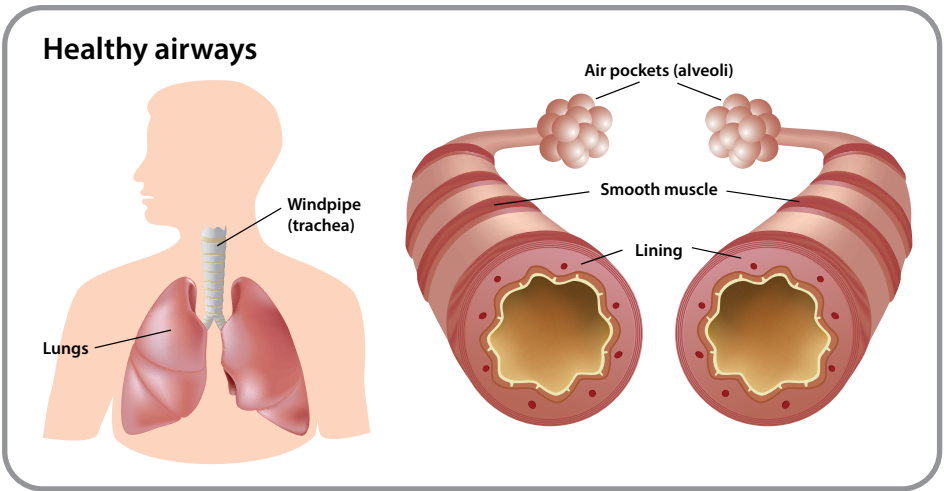
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If you would like to see the clinical guideline, please visit  
[www.sign.ac.uk](http://www.sign.ac.uk).

Details of support organisations and other places where you can get more information are on page 51.

# What is asthma?

**Asthma is a condition that affects your child's airways (the small tubes that carry air in and out of your child's lungs). Asthma can start at any age and there are many different causes.**



**If your child has asthma, you may find they sometimes have symptoms (signs) like these.**

Asthma symptoms include at least two of the following:



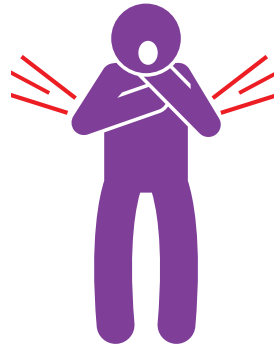
- Shortness of breath



- Wheezing (a whistling sound coming from the chest)



- Coughing a lot (especially after exercise or at night)



- A tight feeling in the chest

Asthma symptoms come and go. You might find your child has symptoms at different times of the day (particularly during the night), and even at different times of the year.



**Some things can make your child's asthma worse. They are called asthma triggers.**

Examples of common asthma triggers are:



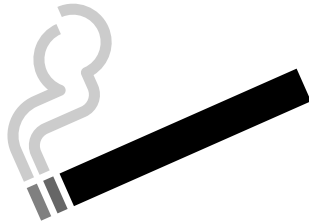
- a cold



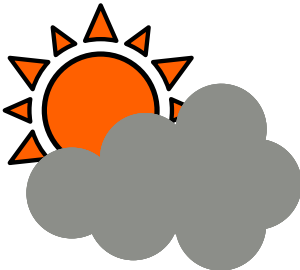
- dust



- pollen



- cigarette smoke



- changes in the weather



- pets

**People have different asthma triggers and most people have more than one trigger.**

When your child comes into contact with their asthma triggers, a few things happen:

- The muscles around their airways tighten.
- The lining of their airways becomes swollen and inflamed.
- Lots of mucus (phlegm) is produced in the airways.

These make your child's airways narrower and lead to asthma symptoms.

"It helps to learn more about the condition, to see how everything fits into place. Because asthma affects a child's whole life: at school, the playground, sports, going out, etc. The more I knew about his condition the more I was able to explain it to myself, my son and to other people, like teachers and other parents to get their help. Because asthma is most of the time an invisible disease." **Martine**

You can use this space to write down any concerns you have about your child's asthma symptoms or triggers.

# How is asthma diagnosed?

## How will the doctor and I know if my child has asthma?

You will need to see your child's doctor to find out if your child has asthma. Asthma can be difficult to diagnose, particularly in young children.

There is no single test that allows the doctor to say for certain that your child has asthma, so the doctor will do a full check. Your child might not have any symptoms or signs when they see the doctor, so they may need to check your child again in the future when they are having asthma symptoms.

"My daughter was never poorly when we had an appointment at the chest clinic, however her consultant's questions helped us to feel included and that our concerns were noted." Donna



## Recommendation based on research evidence

Your child's doctor might ask:

- what symptoms your child is having
- how often and when they get symptoms
- if their symptoms are worse during the night or in the early morning (or both)
- if their symptoms come on after they exercise or play
- what you think triggers your child's asthma symptoms
- if your child only gets symptoms when they have a cold or at certain other times
- you to fill in a symptom questionnaire.

Some conditions such as eczema and allergies go hand in hand with asthma so make sure you tell your doctor:

- if your child has a history of other conditions such as eczema, hay fever or other allergies
- if anyone else in your family has a history of asthma or other allergic conditions such as hay fever, eczema or food allergy.



### Recommendation based on research evidence

Your doctor will:

- look and listen to your child's chest
- make a note and tell you if they hear wheezing, and
- if your child is old enough (primary-school age), do some breathing tests to see how well their lungs are working (lung function). The main tests are **peak flow** and **spirometry**.

It can be difficult for some children to take the breathing tests. Your child may need time to learn how to blow out air and the results may not be reliable until they have mastered this. Usually children have to be over 5 years old before they can do lung-function tests reliably.



### Recommendation based on research evidence

If your child doesn't have symptoms at the time of the breathing test, results can be normal. In that case, your doctor may want to repeat the test when your child has symptoms.

**Peak flow** is a breathing test that measures how fast your child can blow air out of their lungs. It is done using a small device called a peak-flow meter.



Your doctor may ask you to carry out peak-flow monitoring at home for a period of time.



**Spirometry** measures the amount and the speed of air your child can blow out. It is done using a machine called a spirometer.

## What if the doctor thinks my child has asthma?



### Recommendation based on clinical experience

If your child's doctor thinks your child is likely to have asthma, they may give them asthma medicines to try. This is called a treatment trial. The medicine is usually an inhaled steroid (a preventer inhaler) for 6–8 weeks.

Your child will be asked to see their doctor after the treatment trial to talk about whether the medicine is working. If the treatment helps your child's symptoms, this means your child is highly likely to have asthma. If the medicines have helped, your doctor may stop the medicine to check if your child stays well without them. If symptoms come back, your doctor will start the medicines again for a longer time. They will then arrange an asthma review. You can find more information on asthma reviews on page 12.

## What if the doctor thinks asthma is unlikely?



### Recommendation based on clinical experience

If the treatment is not helping your child, the doctor will:

- stop the asthma medicines
- consider doing more tests
- consider making a different diagnosis, and
- refer your child to a specialist.

# Who will help me look after my child's asthma?

**Your child's doctor or asthma nurse will help you look after your child's asthma. You will need to take your child to their doctor or asthma nurse to have an asthma review at least once a year.**

## **Asthma reviews with your doctor or nurse**



### **Strong recommendation based on good-quality research evidence**

Your child should have regular asthma reviews with their doctor or asthma nurse. At the review the doctor or asthma nurse will ask about your child taking their medicines. They will ask how well your child manages to follow the routine you have agreed with them.

“Seeing the dedicated asthma nurse was a huge breakthrough for us. She spent time going through inhalers, techniques and imparted a wealth of knowledge.” **Alex**





### **Recommendation based on clinical experience**

In an asthma review your child's doctor or asthma nurse will ask you and your child about your child's asthma. This is to make sure their asthma is being controlled and that they are on the right medicines for them. Your answers will help your doctor or asthma nurse discuss and decide with you and your child what would be the best treatment.



### **Recommendation based on clinical experience**

Your child's doctor or asthma nurse will also ask your child specific questions such as 'How often do you use your blue inhaler?'. You can read about inhalers on page 29.



### Recommendation based on clinical experience

Your child's doctor or asthma nurse will also check and record the following:

- Whether your child has had any asthma attacks since their last review and, if so, how many.
- Whether your child has had any time off school or nursery because of their asthma since their last review.
- How many inhalers and medicines your child has been prescribed since their last review, and how many your child has used.
- Whether your child has needed any courses of steroid tablets since their last review and, if so, how many.
- Whether your child is or has been exposed to tobacco smoke.
- Your child's height and weight.
- Whether your child has a **personal asthma action plan** and, if so, you know how to use it. There is more about this on pages 16–18.



### Information

The doctor or asthma nurse will also watch your child use their inhaler to check they're using it properly. Always remember to take all your child's inhalers and spacers to the asthma review.

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

"I encourage my 7-year-old son to take some responsibility for his asthma. When we see the consultant, she asks him how he thinks he's been coping with his asthma. He really enjoys being involved in the discussion and can offer details of how he copes at school and during sports which helps to inform decisions about his treatment."

Karen

## Personal asthma action plan

A **personal asthma action plan** is written information provided by your child's doctor or asthma nurse to help you and your child understand how to recognise if their asthma is getting worse, or if they're having an asthma attack and how to control it.



**Children who have a personal asthma action plan are more likely to have better control over their asthma. This means 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.**

You can give other people who care for your child a copy of the plan, and send a copy to their school.

“When we got a personal asthma plan written for our son, it was a game changer. We had defined ‘targets’ and if he slipped below, we knew exactly what to do. Without it we might have left it too long to intervene or conversely panicked before we needed to!” **Diane**



### **Strong recommendation based on good-quality research evidence**

Your child's doctor or asthma nurse will draw up the plan with you and your child. It should include your and your child's preferences and opinions.

If asthma is stopping your child doing things they want to do, ask their nurse or doctor to include how to manage these things in their action plan. You will be able to discuss it with them at your child's asthma review. It's important that you understand and agree with the action plan.

Your child's doctor or asthma nurse will also go through the plan with you and your child at other times when they discuss your child's asthma with you.



### **Information**

Your child's personal asthma action plan should contain information on:

- your child's medicines (for example, what they take and when)
- how to recognise when their asthma is getting worse
- what to do when their asthma is getting worse, and
- what to do if your child has an asthma attack.



### Recommendation based on research evidence

If your child has to go into hospital because of their asthma, their personal asthma action plan should be reviewed before they leave.

You should speak to your child's doctor or asthma nurse if your child doesn't have a personal asthma action plan.

An example of a blank personal asthma action plan, from Asthma UK, can be found on pages 54–55.

You can also download or order one from Asthma UK by visiting [www.asthma.org.uk/advice/child/manage/action-plan](http://www.asthma.org.uk/advice/child/manage/action-plan)


"Our school seems to be a lot more prepared in responding to asthma exacerbations. There was a time when we used to worry about how they would recognise our son's asthma was getting worse, but we now feel a lot more confident with good training in place and a well written asthma action plan to hand." **Debbie**

# What medicines can help control my child's asthma?


Your child's doctor or asthma nurse will give you medicines to help you control your child's asthma. If their asthma is controlled well, your child should:

- have no asthma symptoms during the day
- not be woken up at night because of their asthma
- not need to use their reliever inhaler, and
- not have asthma attacks.

Having the right medicines will also mean their asthma won't interfere with their daily life (including exercise). It can take time to find the best medicines to suit your child.




Asthma medicines		
Type of medicine	When to take it	How it helps
Reliever inhaler (usually blue). This is also sometimes called a short-acting reliever. Everyone with asthma should be given a reliever inhaler. 	When your child feels their asthma symptoms start, for example when they start to cough or wheeze. Your child should only take their reliever inhaler when they get their asthma symptoms. You should keep the inhaler handy at all times.	It helps relieve your child's asthma symptoms for a few hours. Reliever inhalers temporarily open up your child's airways by relaxing the muscles that surround them, allowing them to breathe more easily. The reliever only works if symptoms are present.

## Asthma medicines

Type of medicine	When to take it	How it helps
<p>Preventer inhaler (usually a brown, red or orange inhaler containing steroids).</p> 	<p>Your child should be given a preventer inhaler if they have asthma symptoms (wheeze, cough, breathlessness, chest tightness), especially if they also</p> <ul style="list-style-type: none"><li>- wake up at least one night a week because of their asthma symptoms</li><li>- use their reliever inhaler three times or more a week.</li></ul> <p>Your child should take their preventer inhaler every day even when they feel well, to keep their airways healthy.</p> <p>A good way to remember this is to put the inhaler by their toothbrush.</p>	<p>It reduces inflammation in your child's airways and prevents future asthma symptoms.</p> <p>Persevere with the treatment even if your child still has symptoms in the first few weeks.</p> <p>You should not stop or reduce the preventer inhaler without first discussing it with your doctor or asthma nurse.</p>



Your child’s doctor or asthma nurse may consider trying your child on other medicines to help control their asthma. These may include some of the medicines below.

Other asthma medicines	
Type of medicine	How it helps
<p>Long-acting reliever inhaler (this comes combined with a steroid and is usually purple or red and white)</p> 	<p>It contains a reliever medicine that lasts for 12 hours. These open up your child’s airways by relaxing the muscles that surround them.</p>
<p>Leukotriene receptor antagonists tablets</p> 	<p>These are preventer tablets (which also come as granules for very young children). They don’t contain steroids. They work by blocking one of the chemicals that is released when your child comes into contact with an asthma trigger. They are taken once a day, ideally in the evening.</p>
<p>Steroid tablets</p> 	<p>Steroid tablets work by reducing the inflammation in your child’s airways.</p>



**Recommendation based on clinical experience**

If your child often needs steroid tablets, your doctor should refer your child to an asthma specialist who can look at the medicine being used and how their asthma is being managed.

## How will the doctor or asthma nurse decide which medicines are best for my child?

The aim is to get your child's asthma well controlled on the lowest possible dose of medicines. The doctor or asthma nurse will check your child's asthma and start on the most appropriate treatment for them. If that doesn't work, they will consider increasing the medicine or adding new medicines.

## Increasing your child's medicines



### Recommendation based on clinical experience

Before giving your child more asthma inhalers and medicines, the doctor should always check they are not having any problems with the medicines they are currently using. This includes:

- checking that your child is taking their current asthma medicine regularly
- checking that your child is using their inhaler and spacer correctly (see page 29)
- discussing your child's asthma triggers, and how to avoid them, with you and your child.



### **Recommendation based on clinical experience**

If your child's asthma is not well controlled on the medicines shown here, your doctor should refer your child to an asthma specialist.

## **Decreasing your child's medicines**



### **Recommendation based on research evidence**

Once your child's asthma has been well controlled for at least three months, it may be possible for their medicines to be reduced. It's important they keep seeing their doctor or asthma nurse regularly for an asthma review. When deciding which medicine to reduce, you and your child's doctor will consider:

- how well controlled your child's asthma has been on their current medicines
- how long your child has been taking their current medicines
- any side effects from current treatment, and
- how you feel about the medicines your child is taking.

When your child's asthma medicines are reduced, this should be done gradually. Watch out for any symptoms returning, and tell your doctor or asthma nurse about them.

## What medicines will my child be given if exercise brings on their asthma?



### Recommendation based on clinical experience

Exercise can trigger asthma symptoms in some children. If this happens to your child, their doctor might suggest they take two puffs of a reliever inhaler before exercising. If this is an ongoing problem, the doctor might consider increasing your child's preventer medicines.

"He had a very poor lung function before the right treatment was started. And he never ever complained. He was so used to stopping exercising before getting breathless, so there were no symptoms. The first time he was able to do sport with all his energy, he was so proud!" **Martine**

## **What could the side effects of my child's asthma medicines be?**

### **Reliever inhalers**

Reliever inhalers have few side effects but they can temporarily increase your child's heartbeat or give them mild muscle shakes (tremor). These effects are more common if your child is taking a high dose. They wear off in a few minutes but occasionally can last for an hour or so.

### **Preventer inhalers**

Preventer inhalers have been tested on many patients. The possibility of your child having serious side effects from taking their preventer medicine is low. There is a small risk of localised side effects including sore tongue, sore throat, hoarse voice, and mouth infection (oral thrush).

These side effects are less likely if your child rinses their mouth out, or brushes their teeth after using their inhaler. Using a spacer with the inhaler can also help.



### **Recommendation based on clinical experience**

For a few children, high doses of inhaled steroids may be linked with growth problems. There is a very small risk of reduction in adult height (no more than 1 cm).

Although these side effects are rare, your child's height and weight will be monitored every year by their doctor, especially if they are on a high dose of steroids. If your child is on a high dose of preventer inhaler, their doctor will refer them to hospital to see a children's specialist doctor.

### **Steroid tablets**

Your child's doctor will usually only give your child steroid tablets if their asthma is going through a very bad patch. Usually steroid tablets are only needed for three to five days. At these times it's much safer for your child to take steroids than to try to manage without them. Your child should continue to take their preventer inhaler during this time.

Very rarely your child will need to take steroid tablets for more than a few days. Although there are side effects associated with taking steroid tablets over a long period of time (more than two weeks), these are outweighed by the benefit of good asthma control.

You can use this space to note any concerns about side effects of your child's medicines.

If your child is taking steroid tablets regularly for bad asthma, they should have their growth and weight monitored every year and may be screened for cataracts (eye problems) through community eye-care services. This is done under the care of hospital specialists who will also discuss and monitor your child's:

- blood pressure
- bone mineral density (how thick and strong your child's bones are)
- urine or blood sugar to check for diabetes, and
- cholesterol level.



### **Recommendation based on clinical experience**

If your child often needs to take steroid tablets or needs to take them for more than two weeks, they should be seen by an asthma specialist.

In general, the risks of side effects from the medicines are far outweighed by the benefits to your child and you of good asthma control. Your child's doctor or asthma nurse can discuss with you any side effects and concerns you have.



# Spacers and inhalers

## How should my child take their asthma medicines?



### Information

Your child may be given a spacer to use with their inhaler. Spacers help deliver the medicine to your child's airways and make the inhaler easier for your child to use. They are plastic or metal containers with a mouthpiece or mask at one end and a hole for the inhaler at the other.

Spacers can be used with a pressurised metered dose inhaler.



## How to use a spacer

Different inhalers fit different spacers. The spacer and inhaler should fit together properly. Changing to a different spacer may affect the amount of medicine delivered.

After shaking the inhaler, attach it to the spacer. Place the spacer in your child's mouth or place the mask attached to the spacer over their face. Then press the metered dose inhaler once into the spacer. Your child should then take 5 normal breaths. Breathing normally for 5 breaths is as effective as taking one breath and then holding it and is easier to do. If more than one puff is needed, you should repeat the whole process.



### Recommendation based on clinical experience

Spacers should be cleaned every month. They should be washed in detergent and allowed to dry in air. The mouthpiece should be wiped clean of detergent before use.

Spacers should be replaced at least every 12 months but some may need changing at six months.



### Information

You can watch a demonstration of how to use an inhaler and spacer on Asthma UK's website at [www.asthma.org.uk/advice/inhaler-videos/](http://www.asthma.org.uk/advice/inhaler-videos/)

# How can I help control my child's asthma?

**It's important that you and your child keep good control of your child's asthma. Having good control means:**

- they don't have asthma symptoms during the day
- they are not woken up at night because of their asthma
- they rarely need to take their reliever inhaler
- they don't have asthma attacks, and
- their asthma does not interfere with their daily life including exercise and going to school.


To have good control it's important that your child takes their asthma inhalers and medicines and, if possible, stays away from their asthma triggers such as pollen and cigarette smoke.




## Information

If you are worried about your child taking regular treatment, ask your child's asthma nurse or doctor to explain why the medicines help and they will answer your questions. Having good asthma control is important because it reduces the risk of your child having an asthma attack and needing to be admitted to hospital.

The table below explains some ways you and your child can help control their asthma.

What can I do?	How can this help?
<p>Make sure your child takes their asthma medicines when they should.</p> <p>Learn about your child's asthma from their doctor or asthma nurse. It's important they give you all the information you need.</p> <p>They should give you simple information (face-to-face or written, or both), especially about your child's asthma medicines.</p> <p>Tell your child's doctor or asthma nurse if you have any concerns. They will ask if you have any worries.</p>	<p>For good asthma control it's important for your child to take their medicines, even when they feel well.</p> <p>Many children live with troublesome asthma symptoms (such as coughing, and wheezing) and think this is normal.</p> <p>But good asthma control means your child doesn't have asthma symptoms day or night. If they often do, this is serious and can lead to an asthma attack and long-term lung damage.</p>
<p>Keep your child away from cigarette smoke.</p> 	<p>Smoking or being around cigarette smoke will definitely make your child's asthma worse.</p> <p>If you smoke, try to stop. If you would like to stop, your doctor, asthma nurse or pharmacist can offer advice and support to help you.</p> <p>You should not smoke in front of your child and you should encourage other people not to smoke near them.</p>

What can I do?	How can this help?
<p>Encourage your child to lose weight if necessary.</p> 	<p>If your child is overweight, your doctor or asthma nurse will support them to lose weight. Losing weight may help improve your child's asthma control.</p>



### **Recommendation based on research evidence**

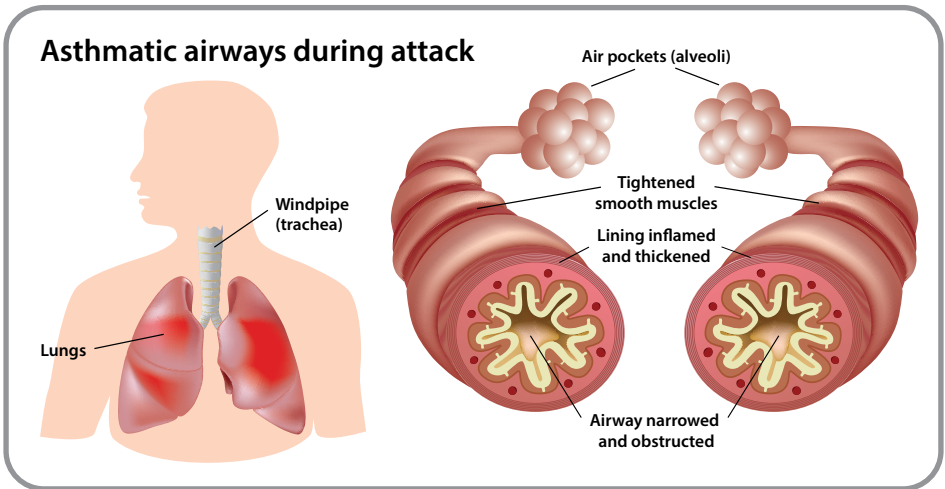
Your child should have all the recommended vaccines including the flu vaccine. There is no evidence that these vaccines increase the risk of your child developing asthma.

If your child is on high-dose steroids for their asthma, the vaccines may not be as effective so you need to speak to your child's doctor about this.

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

**Asthma can usually be controlled with medicines, but sometimes triggers can lead to asthma attacks.**

An asthma attack is when your child's airways become swollen and the muscles around the airways become very tight, which makes breathing more difficult.



Asthma attacks don't usually come out of the blue. Most are triggered by viral infections, particularly the group of viruses called rhinoviruses that cause the common cold. Your child will probably feel their asthma getting worse over a few days before the attack, for example:

- coughing and wheezing more
- they may find breathing more difficult
- they may develop a runny nose
- their chest may start to feel tight, or
- they may become lethargic.

## **How will I know my child is having an asthma attack?**

Your child is having an asthma attack if any of the following happen:

- Their asthma is getting worse – for example, they are coughing or wheezing more than usual or they feel more breathless or their chest feels tight.
- They cannot breathe easily and it's hard for them to talk, eat or sleep.
- They have to use their reliever inhaler more often than usual.
- Their reliever inhaler doesn't help.
- If they are using a peak flow meter, the values will fall.

**If you are having an attack, follow the advice in your child's asthma action plan.**

If they don't have an action plan or you can't find it, follow the advice from Asthma UK in the box below.

**What to do in an asthma attack:**



**1 Sit up straight**

Don't lie down. Try to keep calm.

**2 Take your blue inhaler**

Take one puff of your reliever inhaler every 30–60 seconds, up to a maximum of 10 puffs.

**3 Call 999 if you don't feel better**

Do this if you feel worse at any point, or if you don't feel better after using 10 puffs of your reliever inhaler.

**4 Take your blue inhaler again after 15 minutes**

If you're waiting for the ambulance longer than 15 minutes, take one puff every 30–60 seconds, up to a maximum of 10 puffs.

**If the ambulance is delayed**, and symptoms are not eased by the emergency use of the blue inhaler, repeat the 10 puffs of reliever inhaler every 15 minutes while you wait for the ambulance.

**Important:** The asthma attack information above is **not** for people using a MART inhaler (maintenance and reliever therapy). MART is a combined asthma therapy.

If your child is on MART and having an asthma attack, follow the advice in their asthma action plan or speak to their GP or asthma nurse to get the right advice. If they seem worse or the advice given is not working, call 999.









## Will my child need to go to hospital if they have an asthma attack?

Your child won't always have to go to hospital if they have an asthma attack. Often children only need to go to hospital if their asthma attack is severe. If your child does have a severe attack, you need to get medical help urgently. When they are in hospital they will need to be looked after by a specialist.

## What treatment will my child be given if they have an asthma attack?

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

Treatment	How is treatment given
Oxygen 	Your child's oxygen levels should be checked. If they are low, your child will be given oxygen through a mask or by nasal prongs.
Reliever medicine   	Your child will be given a high dose of reliever medicine through an inhaler and spacer or a nebuliser. A nebuliser creates a mist of medicine that your child breathes through a mask.  Your child may be given another reliever medicine in the nebuliser if the attack is severe or isn't responding to the first reliever medicine alone.  In hospital, the medicine used in the reliever inhaler may be given through a drip.

Treatment	How is treatment given
Steroids 	Your child may be given steroid tablets until they recover (usually for at least 3–5 days).
Magnesium sulphate (medicine that reduces asthma symptoms) 	Your child may be given this through a drip if they have a severe asthma attack.
Aminophylline (medicine that helps treat shortness of breath and wheezing) 	In hospital, your child’s specialist may give them this medicine through a drip if they have a severe asthma attack.

Treatment of asthma attacks varies depending on your child’s age.

Antibiotics don’t usually help treat asthma symptoms as most asthma attacks are triggered by viral infections such as the common cold.

## Treating asthma attacks in children aged two and over

If your child is having an asthma attack at home, you should follow the steps outlined on page 36.



### Information

While your child is waiting to go to hospital, the ambulance staff may give them more doses of reliever inhaler and start them on a course of steroid tablets to stop the attack. It's important that your child is taken to hospital in an ambulance. This is because the ambulance staff can give them more oxygen and reliever medicine on the way if they need it.

Once at hospital, your child will be treated with one or more of the medicines shown in the table on pages 37–38.

## Treating asthma attacks in children under two years

If your child is under two and has an asthma attack at home, they should be given a reliever inhaler through a spacer with a face mask. You should then follow the steps on page 36. If your child needs to go to hospital because of an asthma attack, they may be given one or more of the medicines shown in the table on pages 37–38. Children under two are not usually given magnesium sulphate or aminophylline.

## Before your child leaves hospital



### Information

To help decide when your child is well enough to leave hospital, their hospital doctor or nurse will:

- regularly check their breathing rate
- check how hard they are breathing
- monitor their oxygen level
- discuss with you how to look after your child's asthma, including showing you how to monitor it using a peak flow meter or keeping a diary to monitor their symptoms
- watch your child use their inhaler to make sure they are taking it properly, and
- give them a new personal asthma action plan. This is very important.

You can read more about personal asthma action plans on page 16.

## When your child leaves hospital



### Recommendation based on clinical experience

The hospital will tell your child's doctor about their treatment in hospital and will also arrange a follow-up appointment in a clinic for children with asthma.

Once your child has left hospital, you should make an appointment with your child's doctor within two days of leaving hospital to discuss the next steps about your child's asthma management.

# Can I prevent my child developing asthma?

## Breastfeeding



### Recommendation based on research evidence

All women are encouraged to breastfeed their babies for its many benefits. Breast milk may reduce the chances of a child developing asthma.

## Smoking



### Recommendation based on research evidence

Your child's doctor or asthma nurse will advise you about the risk to your child of smoking.

If you smoke while you are pregnant, this can increase the chance of your child developing asthma and wheezing.

We know that quitting smoking is difficult, so if you are thinking of trying to quit speak with your doctor, nurse, midwife or pharmacist who can help offer you support to give up. You can also visit [www.nhs.uk/smokefree](http://www.nhs.uk/smokefree)

## Diet



### **Recommendation based on research evidence**

You don't need to avoid certain foods while you are pregnant as a way to prevent your child developing asthma.



### **Not enough evidence to tell us if something is of benefit**

There is not enough evidence to suggest that using dietary supplements while you are pregnant can prevent your child developing asthma.

# Asthma in young people

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

Adolescence is when you are moving from childhood to adulthood. You are becoming more independent but it can be a difficult time for you.

You may think that having asthma can make things worse for you. It's quite normal to feel anxious or depressed.



## Information

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.asthma.org.uk/advice/manage-your-asthma/young-people](http://www.asthma.org.uk/advice/manage-your-asthma/young-people) as well as about your emotional health at [www.asthma.org.uk/advice/manage-your-asthma/emotional-support](http://www.asthma.org.uk/advice/manage-your-asthma/emotional-support)



## Information

Your school can work with you to help control your asthma. It's important that you keep your school up-to-date with changes in your medication, for example what you take and how much.



As you get older, your doctor or asthma nurse 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 conversation will not be discussed with your parents or family unless you would like them to know about it or if the doctor or asthma nurse has concerns about your safety.

Your written asthma plan, developed between you and your doctor or asthma nurse, allows you to take control of your asthma by taking on responsibility and making some choices for yourself.

Answering the questions below will help you and your doctor or asthma nurse know you're 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 how to recognise an asthma attack?
- Do you know what to do if you have an asthma attack?
- Do you know how each medicine helps you?
- How easy is it to remember to take your medicine?
- Do you have a plan that helps you remember to take your medicines?
- If your doctor or asthma nurse asks you questions, how do you describe your asthma?
- When you need to see your doctor or asthma nurse, how do you arrange to do this?
- If you can't keep an appointment 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?



### **Recommendation based on clinical experience**

- Your doctor or nurse will discuss your treatment preferences with you, for example which inhaler suits you best.
- Your doctor or nurse should ask if you find it easy to use your inhaler at school or when you are out.
- If you use a spacer with your reliever inhaler, your doctor or nurse should consider giving you a reliever inhaler device (such as a dry powder inhaler) that's easy for you to carry around and use when you are out and about.
- Your doctor or nurse should teach you how to use your inhaler and check you are using it correctly.



### **Recommendation based on clinical experience**

When your doctor is giving you advice on controlling your asthma, they should take account of your needs. This means:

- offering help and advice for coping with 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 it, and
- working with your school.

## Smoking and cigarette smoke

At this time in your life you are learning to take responsibility for your own choices. Never feel pressured to smoke just because your friends do. It's important to know about the effects of smoking 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.



### Recommendation based on clinical experience

It's better not to start smoking at all but if you do smoke, your doctor or asthma nurse will offer you advice and support to help you stop and can tell you about local NHS services to help you quit.

Living with someone who smokes may also affect your asthma.

If your parents or carers smoke, they should also be encouraged to stop so you don't have to breathe in their smoke.

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

## Complementary therapies and devices

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 recommend. Always tell your doctor or asthma nurse if you are using any complementary therapies.

Evidence from scientific research shows that air ionisers do not reduce asthma symptoms in people with asthma.



### **Strong recommendation based on good-quality research evidence**

Air ionisers are not recommended as a way to help asthma symptoms.

## How will my asthma care change as I get older?

If you're under the care of a specialist, as you get older you will need health services designed to look after people in your age group. You will become more involved in managing your asthma.



### Recommendation based on research evidence

You will have the chance to go to individual or group education sessions, delivered by healthcare professionals, so that you can gain a good understanding of asthma before moving into adult services.

To make this easier, there should be a clear plan about what should happen. It will mainly be your local doctor looking after your asthma. Only a few young people need to go to hospital.

You, your family and other people who help manage your asthma will be involved in the decisions about how and when you will move from child services to adult services.



### Recommendation based on clinical experience

When you first move into adult services, you should be able to see one named consultant until you have settled in.

## Will having asthma affect my career choice?



### Recommendation based on clinical experience

Your doctor or asthma nurse can discuss future career choices with you and tell you which jobs might increase your risk of work-related asthma symptoms.



### Information

Asthma can be caused by substances you breathe in at work. 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 that can cause occupational asthma include joinery, spray painting, laboratory work with animals or any job that involves using latex gloves such as nursing or dentistry.

For more information, visit [www.asthma.org.uk/advice/understanding-asthma/types/occupational-asthma/](http://www.asthma.org.uk/advice/understanding-asthma/types/occupational-asthma/)

# Where can I find out more?

## National organisations for people who have asthma

### **Asthma UK**

Phone: **0300 222 5800**

Asthma UK Helpline – speak to an asthma nurse specialist:

**0300 222 5800** (9am–5pm, Mon-Fri)

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

General enquiries: [info@asthma.org.uk](mailto:info@asthma.org.uk)

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

### **British Lung Foundation**

Helpline: **03000 030 555**

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

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

### **NHS 24**

Phone: 111

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

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

### **NHS 111**

Phone: 111

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

### **Allergy UK**

Helpline: 01322 619898

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

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



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

**England**

Phone: 0207 404 0242

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

**Scotland**

Phone: 0131 225 4725

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

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

**Useful websites**

**Department for working, jobs and pensions**

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

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

**Health Talk**

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

Health Talk lets you share 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.

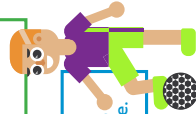


# My Asthma Plan

## 1 My usual asthma medicines

- My preventer inhaler is called \_\_\_\_\_ and its colour is \_\_\_\_\_
- I take \_\_\_\_\_ puffs/s of my preventer inhaler in the morning and \_\_\_\_\_ puffs/s at night. I do this every day even if I feel well.
- Other asthma medicines I take every day: \_\_\_\_\_
- My reliever inhaler is called \_\_\_\_\_ and its colour is \_\_\_\_\_
- I take \_\_\_\_\_ puffs/s of my reliever inhaler when I wheeze or cough, my chest hurts or it's hard to breathe.
- My best peak flow is \_\_\_\_\_

If I need my blue inhaler to do any sport or activity, I need to see my doctor or asthma nurse.



## 2 My asthma is getting worse if...

- I wheeze or cough, my chest hurts or it's hard to breathe, **or**
- I need my reliever inhaler (usually blue) three or more times a week, **or**
- My peak flow is less than \_\_\_\_\_, **or**
- I'm waking up at night because of my asthma (this is an important sign and I will book a next day appointment)

### If my asthma gets worse, I will:

- Take my preventer medicines as normal
- And also take \_\_\_\_\_ puffs/s of my blue reliever inhaler every four hours
- See my doctor or nurse within 24 hours if I don't feel better



**URGENT!** "If your blue reliever inhaler isn't lasting for four hours you are having an asthma attack and you need to take emergency action now (see section 3)"



Remember to use my spacer with my inhaler if I have one.

(If I don't have one, I'll check with my doctor or nurse if it would help me)

Other things to do if my asthma is getting worse

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## 3 I'm having an asthma attack if...

- My reliever inhaler isn't helping or I need it more than every four hours, **or**
- I can't talk, walk or eat easily, **or**
- I'm finding it hard to breathe, **or**
- I'm coughing or wheezing a lot or my chest is tight/hurts, **or**
- My peak flow is less than \_\_\_\_\_

### If I have an asthma attack, I will:



#### Call for help



**Sit up** — don't lie down. Try to be calm.



Take one puff of my reliever inhaler (with my spacer if I have it) **every 30 to 60 seconds** up to a total of 10 puffs.



**If I don't have my blue inhaler, or it's not helping,** I need to call **999** straightaway.



While I wait for an ambulance I can use my blue reliever again, every 30 to 60 seconds (up to 10 puffs) if I need to.

**Even if I start to feel better,** I don't want this to happen again, so I need to see my doctor or asthma nurse **today**.

# How are SIGN guidelines produced?

Our guidelines are based on the most up-to-date scientific evidence. We read research papers to find evidence for the best way to diagnose, treat and care for patients. If we cannot find this out from the research evidence, we ask healthcare professionals to use their clinical experience and judgment to suggest treatments.



**1**  
Gather lived  
experience



**2**  
Identify the  
questions



**3**  
Search for the  
evidence



**4**  
Look at the  
evidence



**5**  
Make judgements  
and  
recommendations



**6**  
Ask people for  
feedback



**7**  
Publish



**8**  
Let everybody  
know about our  
guidelines

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You can read more about us by visiting [www.sign.ac.uk](http://www.sign.ac.uk) or you can phone **0131 623 4720** and ask for a copy of our booklet *SIGN guidelines: information for patients, carers and the public*.

**The Scottish Intercollegiate Guidelines Network (SIGN) writes guidelines which give advice for healthcare professionals, patients and carers about the best treatments that are available.**

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

If you would like a copy of this booklet in another language or format such as in large print, please phone **0131 623 4720**.







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