

Asthma in babies and young children

Information for parents



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 **MERCK SHARP & DOHME**
Ireland (Human Health) Ltd

Asthma in babies and young children

There is no doubt now that asthma is on the increase. Ireland has one of the highest rates of asthma in Europe and the fourth highest rate in the world. A recent study shows that as many as 470,000 people in Ireland have asthma. At least 20% of all Irish children have asthma.

It can be quite a shock to find out that your child has asthma. The good news is that, for most children with asthma, the symptoms can often be controlled with medicines. This booklet will help you to understand asthma better and get information about the best treatment for your child.

Asthma - what is it?

Asthma is a condition that affects the airways - the small tubes that carry the air in and out of the lungs. Children with asthma have airways that are extra sensitive to substances (or 'triggers') which irritate them. Common triggers include colds or flu, cigarette smoke, exercise and allergic responses to pollen, furry or feathery animals, or house-dust mites. Everybody's asthma is different and your child may have several triggers. More information on triggers is available on page 9.

WHAT HAPPENS TO THEIR AIRWAYS?

When the airways come into contact with an asthma trigger, the muscle around the walls of the airways tightens so that the airways become narrower. The lining of the airways swell and produce a sticky mucus. As the airways narrow, it becomes difficult for the air to move in and out. That is why your child will find breathing difficult and you might hear a wheezing noise.

What are the symptoms of asthma?

The typical symptoms of asthma in young children are:

- Coughing, particularly at night and after exercise.
- Wheezing or a whistling noise in the chest.
- Getting short of breath - perhaps your child is not running around as much as usual, or needs to be carried more.

What causes asthma?

We don't know the exact cause of asthma, but we do know that the tendency to develop allergies, including asthma, often runs in families. The chances of a child developing asthma is higher if both parents have it.

Outdoor air pollution has not been proven to cause asthma though it can make the symptoms of asthma worse. Neither you nor your partner should smoke. Passive smoking increases the risk of your child developing asthma.

If your child is diagnosed with asthma, avoid known triggers.

How do I know that my child has asthma?

A definitive diagnosis of asthma can be difficult to obtain in young children.

- At least one child in five will have 'wheezing' at some point during their early years. Many of these children will not go on to have asthma in later childhood, so your doctor may not want to use the term 'asthma' at this stage.
- It is not easy to measure how well a young child's lungs are working. A peak flow meter is used for older children, but is unsuitable for children under the age of six.

The pattern of symptoms that develops over time shows whether a child has asthma or not. Your doctor may ask you to keep a record of your child's symptoms and when they happen. This will help the doctor get to the bottom of your child's breathing problems.

If your child is under the age of two, it is even more difficult to tell if they have asthma. There are a number of different wheezing illnesses, including acute bronchiolitis, 'wheezy bronchitis', as well as asthma, which can make your baby wheezy.

Also, some children wheeze after a chest infection such as bronchiolitis. However, they are quite well and require no treatment, and are known as 'Happy Wheezers'!

Different types of asthma

Doctors often use the words 'mild', 'moderate' and 'severe' to describe asthma. Below are some guidelines explaining what they mean.

Mild: Coughs and wheezes but plays happily and feeds well

Moderate: Waking at night, can't run around or play without coughing and wheezing

Severe: Too restless to sleep, unwilling to play at all, too breathless to talk or feed, lips may turn blue.



Treatments

WHAT TREATMENTS ARE AVAILABLE?

It is important to get control of your child's asthma as soon as it is diagnosed. This will help prevent symptoms and will help your child lead a full and active life.

In most cases regular asthma treatment is done in a step-like way. The first step in treatment will be to use a "reliever" medicine that is used whenever the child needs it. Depending on the severity of your child's asthma, how well they respond to reliever medicines and how often they need to use them, the next step of treatment is to begin regular "preventer" medicine.

The main types of asthma medicines are relievers and preventers and they work in different ways.

- Relievers - help to relieve breathing difficulties when they happen.
- Preventers - help protect the airways and reduce the chance of getting asthma symptoms.

RELIEVERS

Relievers are medicines that children can take immediately when asthma appears. They quickly relax the muscles surrounding the narrowed airways. Relievers are also called bronchodilators. This allows the airways to open wider making it easier to breathe again. However, relievers do not reduce the swelling in the airways.

- Relievers are essential in treating asthma attacks.
- If taken before exercise they can reduce the chances of your child getting wheezy.
- Relievers usually come in blue inhalers.
- Salbutamol and terbutaline are two examples of relievers. Ipratropium bromide is a different type of reliever medicine. It is most commonly used in children under one.

Not all relievers work well for all children under one year old. Your doctor will probably try different relievers to find one that works best for your child.

ARE THERE ANY SIDE EFFECTS FROM RELIEVERS?

Relievers are an effective medicine and have few side effects. They can make your child excitable and increase the heart rate, but this is usually when relievers are given in high doses or as a syrup. The side effects generally wear off after a while.



PREVENTERS

They may be recommended if your child needs to use a reliever more than once a day on a regular basis.

Preventers help calm down the swelling in the airways and stop them from being so sensitive. This means that they are less likely to react badly when they come across an asthma trigger.

- They reduce the risk of severe attacks.
- Their protective effect builds up over a period of time so they need to be taken every day, usually morning and evening, even if your child is feeling well. When your child first starts using them it may take up to 14 days before you notice any improvement in asthma symptoms and several months before they reach their optimum effect.

The first choice of preventer is an inhaled steroid. There are several kinds of inhaled steroids but they all work in the same way; beclomethasone, budesonide and fluticasone are all examples.

For children over four another option is a combination inhaler that combines an inhaled steroid with a long-acting bronchodilator.

If an inhaled steroid alone does not control symptoms, an alternative preventer is a leukotriene receptor antagonist or 'LTRA'. An LTRA can be used as an alternative to inhaled steroids or when inhaled steroids cannot be used. LTRA medicines block the action of naturally occurring chemicals in the lungs called leukotrienes, which are known to cause narrowing of the airways and inflammation in the lungs which can lead to asthma symptoms. These medicines are available as tablets, chewable tablets (in some cases flavoured), and as granules which may be given with food for children as young as six months. This ensures that the child gets all of the medication in a way that is easy to take.



CONCERNS ABOUT STEROIDS

Some parents worry about giving their child steroids to treat their asthma. Here are some points to remember:

- The steroids used to treat asthma are called corticosteroids.
- Corticosteroids are similar to those produced naturally in our bodies.
- They are completely different from the anabolic steroids used illegally by body builders and athletes.
- Most children use inhaled steroids which go straight into the airways, so very little is absorbed into the rest of the body.
- Your doctor will prescribe the lowest possible dose of inhaled steroids to get your child's asthma under control.
- Low doses of inhaled steroids do not commonly cause serious side effects or affect growth.

WHEN ARE STEROID TABLETS USED IN ASTHMA?

A short course of steroid tablets (usually 3-5 days) is sometimes needed to treat an asthma attack. They are very effective at bringing severe asthma symptoms under control quickly.

Your child should not experience any side effects from an occasional treatment with steroid tablets. Steroid tablets can lower the body's resistance to chickenpox. If your child has had a course of steroid tablets in the last month and is in contact with chickenpox, go and see your doctor. Talk to your doctor or practice nurse about any concerns you have about the side effects of your asthma treatment.

CAN COMPLEMENTARY MEDICINE HELP?

Some people find that complementary therapies seem to improve their asthma symptoms. However, there is little scientific evidence that complementary treatments are effective. If you want to try any complementary treatments available, tell your doctor and do not stop giving your child their prescribed asthma medication.

How does my child take the medicines?

INHALERS

Most asthma medicines are inhaled (breathed in), usually from an inhaler and this can be an effective way of taking the medicine. The inhalers may be used on their own or with other devices such as spacers and masks. These devices are usually used in small children to ensure they get their medicine effectively.

Even in babies, it is better to use these rather than syrup. The dose of reliever medicine is lower when given by inhaler compared to the dose in syrup, because it goes straight to the lungs.

- There are many different devices available for both reliever and preventer medicines. Most children under five will need to use an aerosol inhaler.

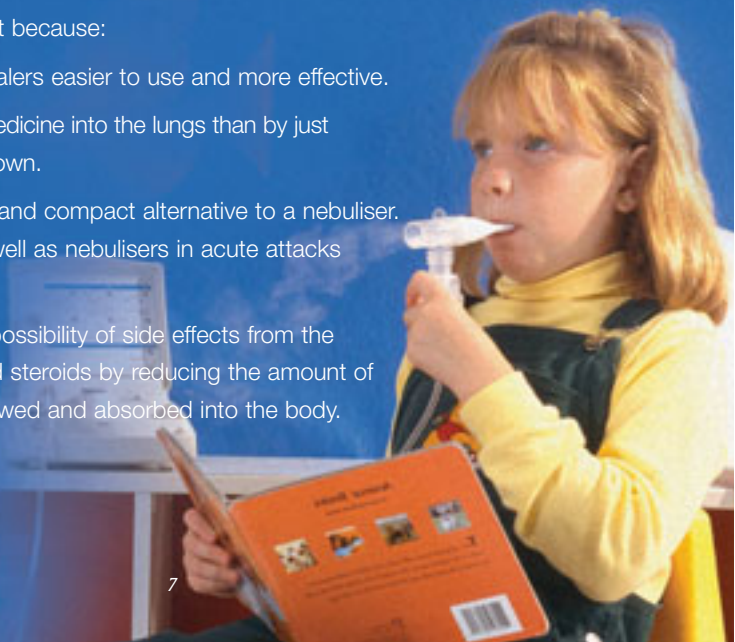
WHAT IS A SPACER?

A spacer is a large plastic container, usually in two halves that click together. At one end there is a mouth-piece and at the other a hole for the aerosol inhaler to fit in. If your child is under the age of three, or unable to use a mouth-piece, you will probably need a face mask as well.

There are several different brands of spacer, which fit different inhalers and are available on prescription (including Volumatic and Babyhaler). Another spacer, the Aerochamber is not currently available on prescription.

Spacers are very important because:

- They make aerosol inhalers easier to use and more effective.
- Your child gets more medicine into the lungs than by just using the inhaler on its own.
- They are a convenient and compact alternative to a nebuliser. Spacers work just as well as nebulisers in acute attacks of asthma.
- They help reduce the possibility of side effects from the higher doses of inhaled steroids by reducing the amount of medicine that is swallowed and absorbed into the body.



HOW DO I USE THE SPACER?

When you first get the spacer, wash it in warm soapy water, rinse and leave it to dry.

1. Fit the mask onto the spacer if necessary.
2. Shake the inhaler well.
3. Fit the inhaler into the opening at the end of the spacer.
4. Place mask over your child's face so it seals around the nose and mouth.
5. Press the inhaler once and allow your child to breathe it in for a slow count of ten.
6. Remove inhaler and shake again.

Repeat steps 2 to 6 for each dose of medicine. Your doctor or nurse will tell you how many puffs are needed. Always check with them if you are not sure.

REMEMBER

Only put one puff of medicine into the spacer at a time. If you put in more than one puff, the droplets of spray stick together and coat the sides of the spacer, so your child actually gets less medicine.

TIPS FOR USING THE SPACER AND MASK WITH BABIES

- Cuddle the baby on your knee or cradle the baby in your arms. Gently tuck baby's arms out of the way with one hand if s/he tries to knock the mask away.
- Be positive and smile! Your baby will be aware if you are anxious.
- Gently stroke the baby's cheek with the mask so that s/he gets used to the feel of it.
- Use it when the baby is asleep.



TIPS FOR CHILDREN OVER TWO

Sometimes between the ages of two and three, your child will learn to use the spacer without a mask.

- Show your child how to use the inhaler and spacer first without puffing medication into it.
- Turn the spacer into a toy - decorate it with coloured stickers.
- Turn it into a counting game. Count aloud as your child takes a deep breath.
- Have a routine - set a time of day to give preventer medication. It's best to do this before brushing teeth.
- Praise your child when s/he uses their spacer correctly.

DOES MY CHILD NEED A NEBULISER?

A nebuliser is a machine which creates a mist of medicine which the child breathes in through a mask or mouthpiece. With so many improved inhaler devices and spacers around, there is less and less need for nebulisers.

However, if your child has very severe asthma or cannot use a spacer, they may need a nebuliser. That is because they allow much bigger doses of medicine to be taken. Your hospital consultant will prescribe one if it is needed.

USING INHALERS PROPERLY

When using inhalers it is important that your child uses the right technique to take the correct amount of medicine to control their asthma. Nearly half of children do not use their inhalers correctly when they are not supervised and need to be shown how to use them properly. Check with your doctor or nurse regularly that the right technique is being used and they are taking the right amount of medication.

Getting to know the triggers

Here is a list of some common triggers that cause asthma in children.

COLDS AND VIRAL INFECTIONS

These are common asthma triggers in young children. Unfortunately, they are almost impossible to avoid! However, taking regular prevention medication can reduce the risk of an asthma attack caused by a chest infection. Up to 80% of children under five have asthma caused by viral triggers but they often grow out of it.

Some children only wheeze with colds and not at any other time. They have a variety of asthma which is sometimes called “wheezy bronchitis”. Allergies are not important in this type of asthma.

In older children asthma is more likely caused by other triggers.



HOUSE DUST MITES

House dust mites are tiny creatures that live in our beds, carpets, soft furnishings and soft toys. Most children under five with asthma do not have known allergies to mites and other dust but if your child is allergic the following tips may help:

- Use barrier covers for childrens bedding.
- Hot wash (at 60°C) all bedding at least once a week.
- Vacuum frequently (three times a week) using a high-efficiency vacuum cleaner.
- Dust regularly (three times a week) with a damp cloth.
- Keep soft toys to a minimum and wash at 60°C every week or two weeks.

FURRY OR FEATHERY ANIMALS

Some children with asthma are allergic to furry animals and occasionally birds.

- Think seriously before buying a pet if there is a family history of allergies or if your child has asthma.
- If you already own a pet, try to keep it out of the bedroom and lounge.

CIGARETTE SMOKE

At least 75% of people with asthma become wheezy in a smoky room. It has been shown that children with asthma whose parents smoke have more asthma episodes than children whose parents don't smoke.

One of the best ways to help your child's asthma is not to smoke. Cigarette smoke triggers asthma attacks and it is especially harmful to growing lungs.

- For advice, help and support on giving up smoking call **National Smokers Quitline** on **1850 201203**.
- Keep your child away from smoky atmospheres. If you must smoke, smoke outside.

- If you're planning a baby, both parents should stop smoking during pregnancy. There is evidence that this can reduce the risk of your child developing asthma.

POLLEN

Very few children under five have asthma that is triggered by pollen unless they have other allergies or a family history of allergy.

- Do not stop your child from playing outside, but be aware that a high pollen count could cause problems.
- Visit your doctor who will be able to prescribe hay fever treatments. S/he might also suggest that you increase the dose of preventer during the pollen season.

Although it's difficult for children to avoid pollens and spores completely, there are several sensible and worthwhile precautions you can take.

Indoors

- Keep doors and windows closed especially mid-morning and late afternoon to early evening. These are the times when the pollen count is usually at its highest.
- Vacuum regularly and dust with a damp cloth.
- Avoid drying clothes outside. But if you do, shake them before bringing them back into the house. This reduces the amount of any pollen and spores that might have blown onto them.
- If children have been outside, wash their hair and change their clothes when they get back in so they won't carry spores and pollen around the house.
- Splash their eyes with cold water regularly. This will help flush out any pollen and will also soothe and cool the eyes.
- Keep fresh flowers out of the house.
- Keep furry pets out of the house during the hay fever season.

If your pet does come indoors, wash or bathe them regularly to remove any lingering pollen from their fur.



Outdoors

- Check the pollen forecast before your child ventures outside. This will give you an idea of how high or low the pollen count is in your area.
- Encourage children to stay indoors if there is a high pollen count.
- Get them to wear wraparound sunglasses, these will help stop pollen blowing into their eyes.
- Smear Vaseline inside their nose which can help to stop pollen and spores from settling on the lining of the nose.
- Encourage them to stay out of places with lots of grass, like parks or fields.
- Keep your car windows closed. Some cars can be fitted with pollen filters. Ask at your local garage for further details.
- Try to avoid mowing the lawn or weeding. These activities can create clouds of pollen and spores.

MOULD

Avoid condensation - it will help reduce house dust mites and mould spores in your home.

Mould spores can trigger asthma symptoms in some children. They are found in any damp place from piles of autumn leaves and woody areas to bathrooms and kitchens.

- Remove damp and mould in the house quickly and avoid condensation.
- Avoid drying clothes on radiators to reduce condensation and damp air.
- Keep rooms well aired.

COLD AIR

Some children are sensitive to cold air and may cough or wheeze when they first go out outside. But don't think this means they have to stay inside.

- A puff of reliever (or more if your doctor tells you to) just before going out should help.
- Wearing a scarf, covering the nose and mouth, will also help as this will warm the air.

FOOD

Food allergy is rare and seldom triggers asthma. If you are concerned, keep a food diary and discuss with your doctor or asthma nurse. Please note: nut and shellfish allergy can be very serious and extra special precautions are necessary in this case.

CHEMICALS

Chemical irritants found in some products in your house, such as scented or unscented products, including cleaners, paints, adhesives, pesticides, cosmetics, or air fresheners, may make your child's asthma worse.

- Use these products less often and make sure your child is not around when you use the products. Also, consider trying different products.
- Take great care to follow the instructions on the label. If you use these products, try to make sure that windows or doors are open.

EXERCISE AND EXCITEMENT

Exercise and excitement can trigger asthma in some children. But it is very important for children with asthma to have fun and enjoy exercise. With proper asthma management, exercise should not be a problem.

- Make sure your child takes the preventer every day. It will help keep symptoms at bay.
- Give a puff or two of the reliever inhaler just before they start running around. It will help them exercise without getting wheezy.

Go swimming- (however, chemicals used in pools may be a trigger for some children).





Managing your child's asthma

IS MY CHILD'S ASTHMA GETTING WORSE?

The following signs could mean your child's asthma is getting worse.

- Wheezing and coughing first thing in the morning.
- Increased wheezing and coughing after exercise, or doing less exercise.
- Waking at night with a cough or wheeze.
- Needing more and more reliever medicine with less and less effect.

Your doctor or practice nurse can draw up an asthma management plan for you. It will explain when to use the preventer and reliever and what to do if your child's symptoms get worse.

COPING WITH CHILDCARE

Finding the right childcare can be difficult, especially for parents of children with asthma. Whatever sort of childcare you arrange for your child, it is important to make sure the child care worker understands about your child's asthma.

Think about the following:

- Will anyone be smoking around your child?
- Are there any pets around?
- Will your child's carers give your child medication if necessary?
If so, will they understand when and how to use it?
- Does your child's carer know how to recognise and deal with an emergency?
- Can they contact you quickly at all times?

Make sure you leave clear written instructions for carers. You can give them a copy of your child's asthma management plan available from the Asthma Society of Ireland. This will show them which medicines your child needs to take, when to give them and what to do in an emergency.

What to do in an Asthma attack

- **Be familiar with the asthma management plan that has been agreed with your doctor**
- **Give your child their reliever (blue) inhaler immediately, preferably using a spacer.**
- **Stay calm and reassure your child.**

Attacks can be frightening so stay calm. Do not put your arm around your child – this will be constricting.

■ **Help your child to breathe**

Get your child to sit in an upright position. Lying flat on the back is not recommended. Encourage the child to breathe slowly and calmly.

The reliever should work in 5 minutes and your child can return to normal activity.

Sometimes asthma symptoms (cough, wheeze, tight chest and shortness of breath) are mild and all that is needed is a puff or two of a reliever inhaler.

At other times symptoms are severe and more urgent action is needed.



EMERGENCY SITUATION

Asthma attacks can be frightening so it is important to stay calm. If your child has an asthma attack, follow the Five Minute Rule which contains the recommended steps to follow:

THE FIVE MINUTE RULE

- Ensure the reliever (blue) inhaler is taken immediately
- Get your child to sit down and loosen tight clothing
- Do not put your arm around them
- Encourage them to breathe slowly and calmly
- Stay calm and reassure your child

If there is no immediate improvement continue to take the reliever inhaler every minute for five minutes or until symptoms improve: two puffs if MDI/ evohaler or one puff if turbohaler

If symptoms do not improve in five minutes, or if you are in doubt, call 999 or a doctor urgently

- Continue to give reliever inhaler until help arrives or symptoms improve
- Take your child's treatment details to the hospital or accident and emergency department

Don't be afraid of causing a fuss, even at night. Call the doctor or an ambulance if you have any doubts about your child's condition or if they are becoming distressed, unable to talk or are getting exhausted. If your child is admitted to hospital or an accident and emergency department because of their asthma, it is important to take details of their treatment with you.

You should also make an appointment with your doctor or nurse after your child is discharged from hospital, so that you can review his/her asthma treatment to avoid this situation happening again.

The Asthma Society

We are a national voluntary association of people with asthma, their parents, medical personnel and all those with an interest in the condition.

Purpose and Vision

We provide information, advice and reassurance to people with asthma and to their immediate families.

We run campaigns on behalf of people with asthma to promote awareness and understanding of the condition, and we represent our members' interests in policy-making forums at a national and European level. We also support a number of research programmes which we hope will ultimately lead us to achieving our goal of an Ireland free from asthma.

Our goal is to work towards a situation where people with asthma can realise their full potential, and not be at a disadvantage health-wise, socially or financially.

The Society provides the following services:

- **Asthma Live Line** – an information line
- **Advice line managed by qualified asthma nursing specialists**
- **Information literature**
- **Information days and seminars**
- **Medical Research**
- **Magazine** - distributed periodically to members
- **Administration and general running costs**

It costs just €15 to join the Society and benefits include access to the Asthma Society Magazine, free booklets and peak flow meters at a special rate.



For more information contact

Asthma Society of Ireland,
26 Mountjoy Square, Dublin 1.

Tel: (01) 878 8511

Fax: (01) 878 8128

Email: office@asthmasociety.ie

www.asthmasociety.ie

Membership Form

A. Membership Details/Membership Type

Title (eg. Mr/Mrs): Address:
 Forename:
 Surname:
 Tel No: Type (Please Tick) : Individual Family

B. Payment by Cheque/Postal Order

Individual Membership: €15.00
 Family Membership: €20.00
 Donation (if wished, Thank You): € Lower Price by
 TOTAL: € Standing Order

C. Payment by Standing Order

Individual Membership: €12.00
 Family Membership: €15.00
 Donation (if wished, Thank You): €
 TOTAL: €

To the Manager (Name and Address of your Bank):

**Please pay the sum of € ____ annually from the ____ day of ____ (Month) ____ Year to:
 The Asthma Society of Ireland, Bank of Ireland, 2 College Green, Dublin 2, Sort Code 90-00-17,
 A/C 37426590, until further notice quoting this ref: ASM**

Signed: Account No:
 Full Name: Sort Code:
 Member's Address:

D. Payment by Credit Card/Laser Card

Individual Membership: €15.00 Card Number:
 Family Membership: €20.00 Expiry Date: / (mm/yy)
 Donation (if wished, Thank You): € Signature:
 TOTAL: €

Alternatively you can make your payment using your credit/laser card over the phone by calling **(01) 878 8511**.

If you have any queries regarding completing this form please contact us at (01) 878 8511

**PLEASE RETURN ALL COMPLETED FORMS TO: THE ASTHMA SOCIETY OF IRELAND,
 26 MOUNTJOY SQUARE, DUBLIN 1**

For further information on asthma visit our website at:
www.asthmasociety.ie

Or phone our Asthma Line at **1850 44 54 64.**



Asthma Society of Ireland
26 Mountjoy Square, Dublin 1
Tel: 01 878 8511
Fax: 01 878 8128

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