



Asthma in Babies and Children





Disclaimer

The information contained in this publication is based on current medical knowledge, in accordance with international best practice guidelines, at the time of publication. The information is intended for use as a general guide and does not replace individual consultation by a health care professional on a case-by-case basis.

The Asthma Society of Ireland is not responsible for any injury, loss, damage or expense incurred by any individual or organisation resulting, either directly or indirectly, from any information contained in this publication.

About Us

The Asthma Society of Ireland is the national charity representing the more than 470,000 children and adults with asthma in Ireland. Our mission is for everyone in Ireland to have the best possible asthma care.

We support asthma patients and their families by providing a wide range of high quality information and education services free of charge.

We raise awareness about asthma and the importance of good asthma management with patients and the wider public. We actively work with healthcare professionals, government departments and other organisations to keep asthma high on the agenda. We also support research and innovative projects which investigate the causes and treatment of asthma.

Acknowledgments

This booklet would not have been possible without the hard work and co-operation of the following, to whom we express our sincere thanks:

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- Dr. Fiona Healy – Consultant Respiratory Paediatrician, Children's University Hospital, Temple Street, Dublin.



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Introduction

Asthma is a serious condition. One in five children in Ireland is affected by asthma. Poor asthma control can have a big impact on a child's health and happiness. Asthma in children can cause missed school days, hospitalisation and in a small number of the worst cases, death.

Asthma in Babies and Children aims to teach parents that, with the correct asthma management and treatment, asthma won't stop their child from leading a happy, healthy and active life. The information and advice in this booklet is designed to help parents to take control of their child's asthma. You will find information about symptoms, what asthma triggers are and how to avoid them, and how to control your child's asthma.

If you have any questions about the information contained in this booklet or you would like more information contact our Asthma Adviceline, open between 10 am and 1pm every Monday-Friday, on 1850 44 54 64 or www.asthmasociety.ie

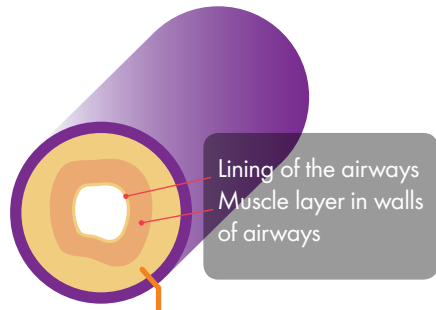


About Asthma

About Asthma

What is Asthma?

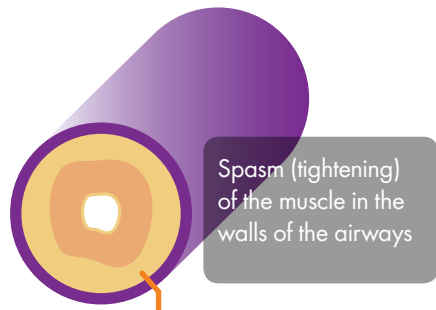
Asthma is a common condition which inflames the airways. The airways are the small tubes that carry air in and out of the lungs. Asthma causes the airways to become over-sensitive and react to things that wouldn't normally cause a problem, such as cold air or dust. The muscles around the wall of the airways tighten, making them narrow. The lining of the airways swells and sticky mucus is produced, clogging up the breathing passages. When the airways narrow like this, it becomes difficult to breathe.



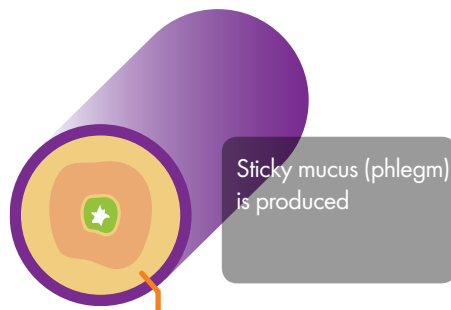
Symptom Free



Worsening Symptoms



Worsening Symptoms

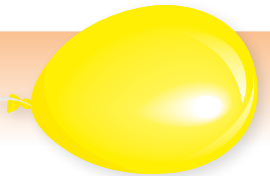


Asthma Attack

What Causes Asthma?

Asthma usually develops in early childhood but it is still unclear what causes it. Asthma and other allergic conditions such as hayfever (rhinitis) and eczema can run in families. A child is more likely to develop asthma if one or both of their parents have asthma.

An allergen is something that causes an allergic reaction.



Things that might increase your child's chances of developing asthma:

- If your child breathes in allergens such as mould, dust or pollen, at an early age;
- If your child gets a lot of viral respiratory infections at an early age;
- If your child is exposed to cigarette smoke, especially while in the womb;
- If your child is overweight or obese;
- If your child breathes in pollution from traffic or smoke from biomass fuels, such as wood or charcoal;
- If your child frequently uses certain medication such as paracetamol or antibiotics.



Asthma Symptoms & Diagnosis

Asthma Symptoms

Asthma symptoms vary in children and can depend on the age of the child. Your child may have one or more of the following common symptoms:

Wheeze

Wheeze is a whistling sound that happens when you breathe through narrowed airways. Not all wheeze is due to asthma and not every child with asthma wheezes. This is why it is important that your child is diagnosed by a doctor.

Cough

A dry, persistent cough in late evening, at night time or during exercise.

Chest Tightness

Young children may not be able to identify chest tightness and might describe it as tummy pain.

Shortness of Breath

Shortness of breath may be caused by exercise, anxiety or excitement.

Diagnosis

Your doctor will diagnose asthma based on:

- The family history of asthma;
- The pattern of your child's symptoms;
- Physical examination of your child's chest;
- Peak flow/lung function test (for children over 5 years old);
- Trial of asthma treatment.

Your doctor may also ask if your child has other conditions, such as eczema or hay fever. Your doctor may also ask you to keep a diary of which symptoms your child has and when they have them.

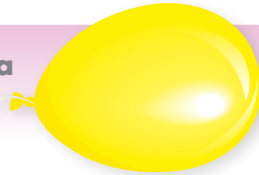
Asthma is difficult to diagnose in children under the age of two years. This is because wheezing and respiratory infections, such as bronchiolitis, are common in young children and the symptoms are similar to asthma. If your child is under two years old and their symptoms are bad or don't go away, your doctor may decide to give them a trial of asthma medication to help make a diagnosis.





Asthma Triggers

An asthma trigger is anything that makes asthma symptoms worse



Knowing your child's triggers and how to avoid them is very important. Below is a list of possible triggers and steps you can take to reduce their impact on your child's asthma control.

Colds and Viral Infections

Colds and viruses are a common trigger for children, especially during the winter months and when they return to school. They are difficult to avoid and can lead to an asthma attack.

Trigger Tips:

- Keep your child's asthma under control by giving them their medication as prescribed;
- Keep a written asthma management plan to monitor their symptoms and to make sure you know what to do when their asthma symptoms get worse;
- Stop the spread of colds and infections by making sure your child washes their hands and uses hand sanitizer regularly;
- If your child is over 6 months old, make sure they get the flu vaccine every year, unless otherwise advised by your healthcare professional.



House Dust Mite

House dust mites (HDMs) are microscopic creatures that live in warm, damp places such as mattresses, carpets, soft toys and household furnishings. It is impossible to get rid of HDMs completely but if you keep following the Trigger Tips below you can reduce them by up to 90%.

Trigger Tips:

- Use zipped anti-dust mite covers for children's mattress, duvet and pillows. Make sure you wash these covers according to the manufacturer's instructions;
- Hot wash all bedding (at 60°C) at least once a week (Dry cleaning is not as effective);
- Remove carpets where possible, as it can be difficult to remove HDMs from carpets by vacuuming;
- Vacuum at least three times a week using a high efficiency vacuum cleaner e.g. those with a HEPA filter. Try to keep your child out of rooms that have been vacuumed for at least 20 minutes;
- Clean all surfaces with a damp or electrostatic cloth two to three times per week;
- Keep soft toys to a minimum and hot wash them (at 60°C) every two weeks.

Household Pets

Some children's asthma is triggered by an allergy to pets, usually dogs and/or cats.

Trigger Tips:

- Think seriously before bringing a new pet into the home and consider borrowing a pet for a short period of time as a trial;
- If you own a pet it should be contained in one area of the house (e.g. a utility room) and **never** allowed in your child's bedroom;
- Vacuum carpets frequently, using a high efficiency vacuum cleaner e.g. those with a HEPA filter;
- Wash pets frequently.



Asthma Triggers

Cigarette Smoke

Cigarette smoke makes asthma control worse, can increase the risk of pneumonia, bronchitis and ear infections, and stops asthma medication working effectively.

Trigger Tips:

- Do not smoke;
- If you must smoke, do it outside;
- Keep your child away from smoky atmospheres;
- Both parents should stop smoking during pregnancy.

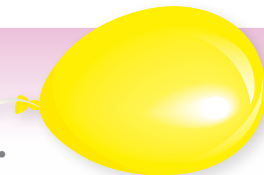
Pollen

It is unusual for children under five years of age to have asthma triggered by pollen. If your child's asthma is triggered by pollen your doctor may change or increase their medication during high pollen times.

Trigger Tips:

- Monitor the pollen count by visiting www.asthmasociety.ie or contacting the Asthma Society;
- Allow your child to play outdoors but keep them indoors during high pollen times;
- Read our **Asthma and Allergic Rhinitis** booklet for advice and information on how to avoid pollen outdoors and in the home.

For advice and support on giving up smoking speak to your health care professional or contact the Asthma Adviceline on 1850 44 54 64.



Mould

Mould spores can trigger asthma. Mould spores can be found indoors and outdoors in damp places such as bathrooms, kitchens, woody areas or autumn leaves. Although humidity promotes mould growth, research has shown that dehumidifiers have no positive effect on asthma control.

Trigger Tips:

- Make sure there is good ventilation indoors and that rooms are aired;
- Check your home for moisture or leaks and repair any broken pipes or structural damage;
- Remove all indoor plants as they may cause mould growth;
- Avoid drying clothes indoors or on radiators.

Changes in Weather

Some children's asthma is triggered by weather or temperature changes, especially at the beginning of spring and autumn.

Trigger Tips:

- Give your child their reliever before they go outdoors;
- Bring your child for an asthma review with your doctor or nurse before the change in seasons.

Chemicals

Asthma can be triggered by the chemicals found in household products. Products which trigger asthma symptoms may be scented or unscented and include: aerosols, cleaning products, paints, adhesives, pesticides, cosmetics and air fresheners.

Trigger Tips:

- Avoid using chemical products where possible;
- Keep your child away from the products and areas where they are used;
- Open doors and windows when using chemicals.



Asthma Management Plan

Asthma Management Plan

Your child should have an Asthma Management Plan to help you monitor and control their asthma.

Your doctor or nurse will work with you to complete an Asthma Management Plan that is tailored to your child's asthma.

An Asthma Management Plan will have the following information;

- Contact details for you and your doctor;
- A list of your child's medication;
- How to recognise when your child's asthma is getting worse;
- What steps to take to improve your child's asthma;
- The 5 Step Rule - what to do in an asthma attack.

Asthma Review

Your child should have an asthma review with a doctor or nurse at least once a year.

An asthma review will cover the following topics:

- Asthma triggers;
- Symptoms and how often they occur;
- Inhaler technique;
- Medication;
- Allergies and how to avoid them;
- The 5 Step Rule - what to do in an asthma attack;
- Contact information;
- Any queries you might have.

Contact the Asthma Society of Ireland for a free copy of the 5 Step Rule.





Asthma Treatments & How to Take Asthma Medication

Treatments

With the right asthma treatment your child can live a full and active life. When your child's asthma is worse, your doctor may increase their medication and decrease it when their asthma is under control.

The following are types of treatment which may be prescribed by your doctor:

Reliever Inhaler

Reliever medication relieves symptoms quickly by opening the airways wider and making it easier for your child to breath. It usually comes in a blue inhaler.

Every child with asthma should have a reliever inhaler and should keep it with them at all times. Reliever medication can be taken before your child's symptoms get worse, for example when they are getting a cold.

If your child needs their reliever inhaler more than twice a week it means that their asthma is not controlled and you should see your doctor. Examples of reliever medication:

- Salbutamol (e.g. Ventolin)
- Terbutaline (e.g. Bricanyl)
- Ipratropium bromide (e.g. Atrovent)

Possible Side Effects

Reliever medication can sometimes cause side effects, such as hyperactivity or increasing your child's heart rate, but these are temporary and you should not be concerned.

Controller Inhaler (Inhaled corticosteroids)

Controller medication reduces the inflammation of the airways over-time. It does not provide instant relief of symptoms but builds up protection over a period of time. It usually comes in a brown inhaler.

Not every child with asthma will need controller medication. Your child may be prescribed controller medication if they have regular symptoms and/or use their reliever more than twice a week.

Controller medication must be taken every day as prescribed, **even when your child is feeling well.**

Examples of controller medication:

- Beclomethasone (e.g. Becotide)
- Budesonide (e.g. Pulmicort)
- Fluticasone (e.g. Flixotide)

Possible Side Effects

Controller medication can occasionally cause hoarseness, sore throat or oral thrush. These side effects can be reduced by making sure your child uses their inhaler correctly, uses a spacer device, and rinses their mouth and wipes their face after taking their medication.

It is important to note that the steroids in controller inhalers are similar to those produced naturally in our bodies and should not be confused with anabolic steroids which are sometimes used illegally by sportspeople.



Asthma Treatments & How to Take Asthma Medication

Leukotriene Receptor Antagonist (LTRA)

An LTRA may be used instead of or as well as controller medication to help control your child's asthma. They are particularly effective for children with exercise related symptoms.

LTRAs are available as tablets, chewable tablets, and as granules which may be given with food for children as young as six months. LTRAs do not work for all children and your doctor may change treatment if there is no change in symptoms.

Examples of LTRAs:

- Montelukast (e.g. Singulair)
- Zafirlukast (e.g. Accolate)

Possible Side Effects

The most common side effects caused by LTRAs are headache, dizziness, abdominal pain, sore throat and rhinitis. Speak to your healthcare professional for more detailed information on possible side effects.

Combination Inhalers

For children with poorly controlled asthma, another medication option is a combination inhaler. These inhalers contain both slow acting reliever medication and controller medication. Children using combination medication should be monitored by their health care professional.

Examples of combination medication:

- Fluticasone & Salmeterol (e.g. Seretide: used in children over 4 years)
- Budesonide & Formoterol (Symbicourt: used in children over 6 years)

Possible Side Effects

Combination medication can occasionally cause hoarseness, sore throat or oral thrush. These side effects can be reduced by making sure your child uses their inhaler correctly, uses a spacer device, and rinsing their mouth and wiping their face after taking their medication.





Asthma Treatments & How to Take Asthma Medication

Oral Steroid Tablets

Oral steroid tablets (glucocorticosteroids) may be prescribed for a period of three to five days to regain control of your child's asthma following an asthma attack. They are good for treating short term asthma symptoms and may prevent hospitalisation. If your child repeatedly needs oral steroids to keep their asthma under control then your doctor may refer them to a paediatric respiratory doctor.

Examples of Oral Steroid Tablets:

- Prednisolone
- Prednisone

Possible Side Effects

Oral steroids can sometimes cause disturbed sleep, hyperactivity and increased appetite. Oral steroids may also reduce your child's resistance to chickenpox. Speak to your healthcare professional if you have any concerns.

Complementary or Alternative Medicine

There is little evidence that complementary or alternative medicine is good for treating asthma. For further information about complementary or alternative therapies please contact the Asthma Adviceline on 1850 44 54 64 or visit our website at www.asthmasociety.ie.

Always speak to your healthcare professional before using complementary or alternative treatments and never stop giving your child their prescribed asthma medication without speaking to your doctor.

You can get a discount on spacer devices by becoming a member of the Asthma Society of Ireland. Go to the back of this booklet to find out how to join.



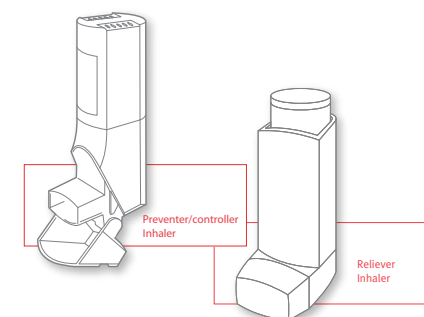
How to Take Asthma Medication

Asthma medication can be given to your child in a variety of ways.

It is important to have your child's inhaler and spacer technique checked by a healthcare professional regularly. You can view demonstration videos on inhaler and spacer technique at www.asthmasociety.ie.

Inhalers

An inhaler is the most effective method of administering asthma medication as it ensures that the medication goes directly to the lungs, where it is needed and requires smaller doses than tablets.





Asthma Treatments & How to Take Asthma Medication

Spacer Devices

A spacer device is a plastic container with a mouthpiece or mask at one end, and space to insert an inhaler at the other. Children should always use a spacer with their inhaler. Spacers have several advantages:

- They make inhalers easier to use;
- They increase the amount of medication that reaches the airways;
- They reduce the risk of side effects associated with controller medication, such as oral thrush.

There are several different brands of spacer device (e.g. Aerochamber, Volumatic, Babyhaler), with some available on prescription.



How to Use a Spacer with a Mask

1. Shake the inhaler;
2. Insert the inhaler into the spacer;
3. Place the mask over your child's mouth and nose, ensuring that there is a tight seal;
4. Press the inhaler once and allow your child to breath in and out slowly five times;
5. Some spacers have a valve which shows the breath going in and out. If so, you can watch this to make sure your child takes five breaths of their medication;
6. Repeat steps 2-5 for each prescribed dose of medication.

How to Use a Spacer with a Mouthpiece

1. Assemble the spacer if it comes in two halves;
2. Shake the inhaler;
3. Insert the inhaler into the spacer;
4. Grip with teeth and place lips around the mouthpiece;
5. Press the inhaler once and allow your child to breath in and out slowly five times;
6. Some spacers have a valve which shows the breath going in and out. If so, you can watch this to make sure your child takes five breaths of their medication;
7. Repeat steps 3-6 for each prescribed dose of medication.

Nebulised Therapy

Nebulised therapy is delivered by a compressed air machine. Nebulised therapy is sometimes used in hospitals to treat asthma attacks or for children with uncontrolled asthma who find it difficult to use a spacer device.

For information on types of nebuliser compressor machines please visit www.asthmasociety.ie.



Asthma Emergency Plan

Asthma Emergency Plan

Signs Your Child's Asthma May be Getting Worse

It is important to recognise when your child's asthma is getting worse so you can take the necessary steps to stop them having an asthma attack. If you are in any doubt, get advice from a healthcare professional.

If your child's asthma is getting worse you may notice one or a combination of the following:

- Your child wheezes or coughs in the morning;
- Your child wheezes after exercise or avoids exercising;
- Your child wakes in the night because of their symptoms;
- Your child needs to take their reliever more frequently;
- Your child's reliever medication doesn't help their symptoms.

During an Asthma Attack follow the 5 Step Rule

- 1.** Take two puffs of reliever inhaler (usually blue) **immediately**;
- 2.** Sit upright and stay calm;
- 3.** Take slow steady breaths;
- 4.** If there is no improvement take one puff of reliever inhaler every minute,
 - Children over 6 years can take up to 10 puffs in ten minutes;
 - Children under 6 years can take up to 6 puffs in ten minutes;
- 5. Call 999 or 112 if,**
 - Symptoms do not improve after following steps 1-4 or you are worried;
 - If an ambulance does not arrive within 10 minutes repeat Step 4.





Other Things to Consider

Childcare & School

It is important to make sure that childcare workers and teachers know that your child has asthma, what their triggers are, and what to do in an asthma attack.

- Give your child’s carer or teacher a copy of their Asthma Management Plan;
- Make sure your child will be cared for in a smoke and pet free environment;
- Find out if your child’s carer or teacher will give them their medication if necessary;
- Make sure your child’s carer or teacher knows what to do in an asthma attack;
- Find out whether your childcare provider knows when and how to give medication;
- Provide contact details for you and your doctor;
- Order a copy of **Best Practice Asthma Management Guidelines for Schools in Ireland** from the Asthma Society.

Breastfeeding

Children who are breast fed for 4 to 9 months have a reduced risk of developing asthma. Infants who are breast fed have a lower risk of wheezing. This may be due to the fact that breast fed infants tend to have fewer respiratory infections which are a common cause of wheezing.

Vaccinations

Immunisation is very safe and effective. All children with asthma and allergic rhinitis should be immunised in accordance with the Primary Childhood Immunisation Schedule. Speak to your healthcare professional for more information.

Influenza, commonly known as the flu, is an infection that affects the respiratory tract and is caused by a virus. It can lead to increased asthma symptoms and other serious complications. Children with asthma are particularly vulnerable to the influenza virus. Vaccination is the only way to protect your child from influenza.

The Asthma Society of Ireland recommends that children over 6 months old with asthma are vaccinated every year, unless your doctor advises otherwise.

Diet & Food Allergy

A healthy balanced diet is recommended for all children, but especially for children with asthma. Studies have shown that lung function is worse and asthma more difficult to control in obese children. Use the Food Pyramid as a guide and include the four main food groups with portion sizes that are age-appropriate. Foods in the top group of the pyramid, such as sweets and cakes, should not be eaten on a daily basis.

For factsheets on healthy eating and information on how to find a dietician visit the Irish Nutrition and Dietetic Institute at www.indi.ie.



Food rarely triggers asthma symptoms and less than 4% of children have a food allergy. You should not cut out any food from your child’s diet unless a specific allergy has been identified and diagnosed by a healthcare professional or allergy specialist. Avoiding food unnecessarily can compromise growth, immunity and overall health. If you suspect that your child may have a food allergy, keep a diary of the food they eat and their symptoms and consult your doctor.



Other Services To You & Asthma App

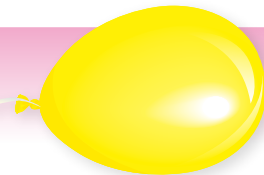
Download Our Asthma Management App **Asthma Coach** for Free

Our Services to You

Call the Asthma Society today to get a free copy of our other publications or download them for free at www.asthmasociety.ie



Lo-call our Asthma Adviceline on 1850 44 54 64 to speak in confidence to an Asthma Nurse.



Or visit www.asthmasociety.ie.



Support the Asthma Society

Support Us

The Asthma Society of Ireland needs your support. As a charity we depend on your donations and membership fees to ensure we can provide all of our information and services free of charge.

More than one person a week in Ireland dies from an asthma attack and thousands are hospitalised. Below are some ways that you can support our work and help us achieve our goal of optimal asthma care in Ireland.

Become a Member of the Asthma Society of Ireland

Becoming a member of the Asthma Society is a great way to support our work. For a small membership fee you will be kept up to date on all the latest news on asthma, learn about the work of the Asthma Society and enjoy a range of discounts and member benefits.

visit www.asthmasociety.ie or
call us on **1850 44 54 64.**

Donate to the Asthma Society of Ireland

All donations to the Asthma Society go towards funding our core work such as the Asthma Adviceline, free asthma clinics in communities and schools nationwide and the publication and distribution of information booklets on every aspect of asthma.



visit www.asthmasociety.ie or
call us on **1850 44 54 64.**



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