

Asthma - in pre-school children

Information for parents



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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 400,000 people in Ireland have asthma. At least 15% of all Irish children have asthma. (AIRI Study).

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 often can be controlled with medicines. This booklet will help you to understand asthma better and get 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.

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.

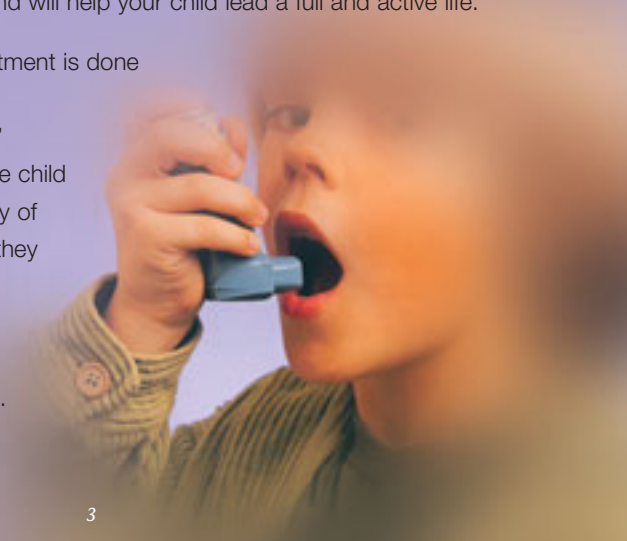
If your child is under the age of two, it is even more difficult to tell if they have asthma. There are a number of different wheezing illnesses, including acute bronchiolitis, ‘wheezy bronchitis’, as well as asthma, which can make your baby wheezy.

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 and 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.



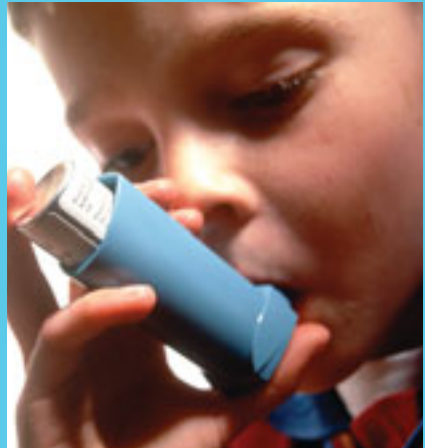
The main types of asthma medicines are relievers and preventers and they work in different ways.

- 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 (these are 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. Relievers can make your child excitable and increase 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.

If an inhaled steroid alone does not control symptoms, an alternative (for children over four only) is a combination inhaler that combines an inhaled steroid with a long-acting bronchodilator.

Another option of 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.

For more information see our [Steroids for Asthma booklet](#), available from the [Asthma Society of Ireland](#).

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.

For more information see our [Complementary Medicine factsheet](#), available from the [Asthma Society of Ireland](#).

How does my child take the medicines?

Most asthma medicines are inhaled (breathed in) and this can be an effective way of taking the medicine.

Even in babies, it is better to use the inhalers 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, Nebuhaler and Aerochamber). The child's 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.

Getting to know your 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.

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.

HOUSE DUST MITES

House dust mites are tiny creatures that live in our beds, carpets, soft furnishings and soft toys. Most pre-school children with asthma do not have known allergies to mites and other dust.

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.



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- it is a form of exercise less likely to trigger an asthma attack.

CIGARETTE 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.

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 you have to stay inside.

- A puff of reliever (or more if your doctor tells you to) just before going out should help.

FOOD

Some young children can be allergic to different types of food but it is rare for food to trigger asthma symptoms. If you suspect your child's asthma is triggered by a specific food, keep a diary of their symptoms and discuss it with your doctor or nurse.

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 wheeze and cough 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 5-10 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

Call a doctor or ambulance if:

- The reliever has no effect after 5-10 minutes.
- The child is either distressed or unable to talk.
- The child is getting exhausted.
- You have any doubts at all about the child's condition.

Continue to give reliever medication (if necessary, one puff into a spacer every few minutes) while you are waiting for help to arrive.

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

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



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