



Caring

for your **child's asthma**

Information to help you understand
and manage asthma



Princess Margaret
Hospital for Children



asthma
foundation
of WA

Caring for your child's asthma

This booklet is for children with asthma and their carers. It provides simple information to help people understand and manage asthma.

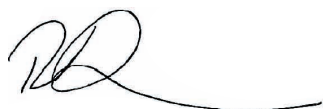
Asthma affects 1 in 6 children under 14 years and 1 in 9 over the age of 15.

As a common chronic illness, it is widely recognised that many of the problems associated with asthma will impact on a child's education and social development. Asthma is the leading cause of school absenteeism in children at primary school. Currently there is no cure for asthma, however it can be controlled. Most people with asthma are able to lead a full and active life!

The Asthma Foundation of WA aims to contribute to the elimination of asthma as a cause of death and disease in our community. The Foundation is committed to providing Western Australians with quality asthma education, awareness and information services and to making a significant contribution to research into a cure.

The Asthma Foundation and Princess Margaret Hospital for Children (PMH) have written this booklet for parents and carers of children with asthma. It has been written with the involvement of the PMH medical team and includes information that can help you to manage your child's asthma. Please use the information in conjunction with a written Asthma Action Plan from your doctor.

This booklet is published for information only and should not be used in place of medical advice.



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About asthma

What is asthma?

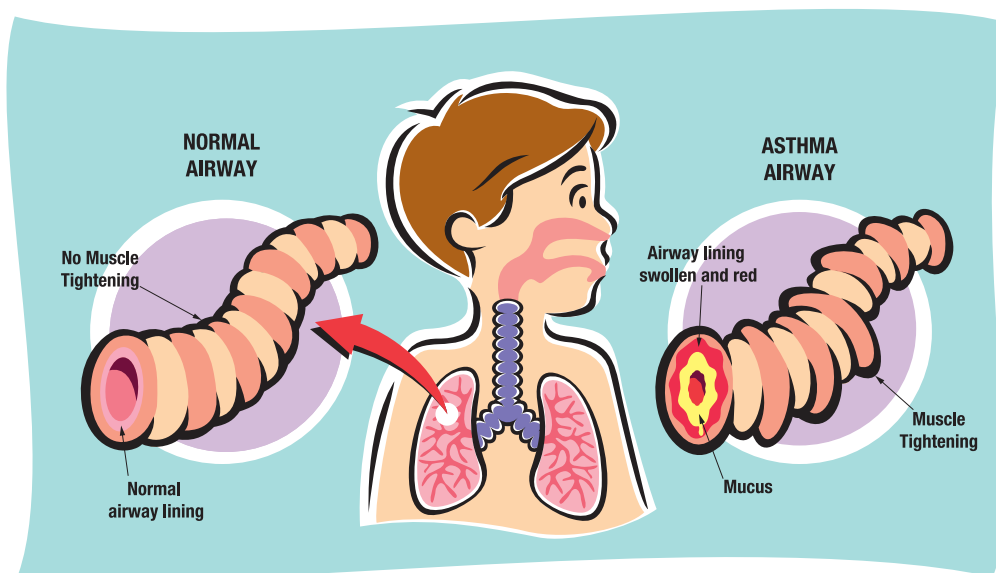
Asthma is a condition that affects the breathing tubes inside the lungs. There are hundreds of tiny tubes inside our lungs, which carry air in and out of the body as we breathe. We call these tubes airways.

People with asthma have extra sensitive or “twitchy” airways in their lungs. This mainly affects the small airways. The airways in asthma are “twitchy” because they are red and inflamed. When these sensitive airways come into contact with certain “triggers” (e.g. colds or flu’s, cigarette smoke) they over-react and become narrow, making it hard to breathe. Anything that can worsen someone’s asthma or bring on an asthma attack is called an “asthma trigger”.

There are three reasons why the airways become narrow:

1. The lining inside the airways becomes red and swollen.
2. The airways make extra mucus.
(Both of these reasons are known as **inflammation**).
3. The muscles around the airways tighten. These tiny muscles are like elastic bands that wrap around the airways. When they tighten, they squeeze down on the airways.

Asthma is like the sun. A little bit will not hurt too much. But like repeated sunburn damages the skin, asthma, if untreated, can cause permanent damage in the airways and lead to scarring.



Why do people get asthma in the first place?

We are not certain why, but asthma, eczema or hay-fever often runs in the family of children with asthma. Asthma can begin at any age. Smoking while pregnant increases the risk of a child developing asthma. Children who live in homes where others smoke also have a greatly increased risk of developing asthma. **For further information about smoking, asthma and children, go to www.smokefreebaby.org.au.**

How common is asthma?

Asthma is very common. About 1 in 6 children 14 years and under and 1 in 9 over 15 year olds has asthma. Australia has one of the highest levels of asthma in the world.

What are the signs that your child may have asthma?

These are the main symptoms of asthma:

1. Coughing.
2. Shortness of breath (working harder to breathe). This happens because the airways have narrowed, so the child has to work harder to get the air in and out of their lungs.
3. Wheezing (a high pitched whistling sound). This is the sound of the air trying to squeeze through the narrow airways as the child breathes. Even though a wheeze is the most common sign of asthma, it may not always be heard, especially in a severe asthma attack.
4. Feeling tight in the chest.

Some children have all of these symptoms, while others may only have a wheeze and shortness of breath. It is different for each child. Symptoms can also change in the same child from time to time.

What triggers asthma?

Anything that brings on an asthma attack or makes someone's asthma worse is called a trigger. Triggers are different for different people. What triggers one child's asthma, may not trigger another's.

Colds and flu

Most children's asthma will be triggered by viral chest infections, colds or flu's.

Cigarette smoke

Cigarette smoke affects **all** people with asthma. Smoking or breathing in the smoke from other smokers can trigger an asthma attack. Living in a house where people smoke will make it harder to keep your child's asthma under control. Keeping your house and car smoke free will help your child's asthma. If you would like some advice about how to quit smoking please phone the Quit Line on 13 18 48.

Exercise

Sports, or running and playing can trigger some children's asthma. Exercise is the only trigger that should **not** be avoided and is good for your child's health. If exercise, or running and

playing, is triggering your child's asthma, you should speak to your doctor or an asthma educator about what you can do to control this.

Allergies

Some children become allergic to certain things that can trigger their asthma. These can include pollens, grasses, house dust mite, some foods, moulds or animal hair. Blood tests or skin prick tests can be done to help find out whether your child does have an allergy. Your doctor will let you know whether or not your child needs to have one of these tests.

Changes in temperature and weather

Cold temperature, cold winds, sudden changes in weather, air conditioning and changes between hot and cold areas can be a trigger.

Chemicals and strong smells

Fumes from paint, spray cans, perfumes or cleaning detergents can trigger asthma in some children.

Some foods and food preservatives, flavourings and colourings

Foods are a rare trigger for asthma. When foods are a trigger, they more commonly affect babies and toddlers. Older children and adults are more likely to be affected by food additives and colourings. If you feel your child's asthma is being made worse by a certain food, you should speak to your doctor.

Certain medicines

Some medicines, like aspirin and some drugs used to treat arthritis or pain, may trigger asthma. Always check with your doctor or pharmacist first before starting your child on any new medication to make sure it is safe.

Complementary therapies

Some complementary medicines such as royal jelly or echinacea may worsen asthma. Always discuss complementary therapies with your doctor or pharmacist.

Sometimes we don't know what is triggering a child's asthma.

Keeping your child's asthma under control

Can asthma be cured?

Asthma cannot be cured but it can be controlled. Getting your child's asthma under control means that they will be able to live their life to the full without asthma getting in the way.

To control your child's asthma

1. Give asthma medications
2. Know your child's triggers and avoid those triggers the best that you can
3. Visit your doctor regularly and follow the doctor's advice
4. Have a written Asthma Action Plan
5. Monitor your child's asthma
6. Encourage your child to exercise and be active

The following sections will examine each of these six points in detail.

1. Give asthma medications

One of the most important ways to look after your child's asthma is to give their asthma medications as directed by your doctor.

Most asthma medications are breathed into the lungs through the mouth. There are three main types of asthma medications: **relievers**, **preventers** and **symptom controllers**. **Combination** medications are another group of medications which combine a preventer with a symptom controller.

Not all children with asthma need to be on all of these types of medications. Your child's doctor will tell you which of these your child needs to have.

Relievers

Airomir, Asmol, Bricanyl, Epaq and Ventolin

These are the blue/grey inhalers. Everyone with asthma should have a reliever medication. These provide quick relief from asthma symptoms (coughing, wheezing, shortness of breath and tightness in the chest) and only take a few minutes to work. Relievers relax the muscle around the airways. This opens up the airways, making breathing easier.

Relievers should **only** be used when needed. Children should have their reliever with them at all times. Reliever medication works more quickly if it is inhaled. Reliever syrup is not recommended.

What are the side effects of relievers?

Relievers can cause shakiness, fast heartbeat and excitability. This does not hurt your child and usually only happens when they are having larger amounts of reliever than usual. These symptoms will go away once your child is taking less.

Preventers

Inhalers:

Preventer inhalers are largely autumn coloured (yellow, brown, red, orange).

- **Corticosteroid inhalers: Alvesco, Flixotide, Pulmicort and QVAR**
- **Non-steroidal inhalers: Intal Forte and Tilade**

Tablets:

- **Singulair**

Preventer medications make the airways less sensitive or twitchy by reducing the inflammation caused by asthma. This means that the airways won't narrow so easily when exposed to triggers. This helps to keep your child's asthma well controlled and helps prevent asthma attacks. Preventers are also known to reduce long term scarring and narrowing of the airways. When your child first starts using a preventer, it can take a few weeks of taking it every day before their asthma starts to get better.

To work properly, preventers need to be taken every day, even when your child's asthma is well. Do not stop your child's preventer unless told by your doctor.

Are there any side effects from taking preventer inhalers?

The corticosteroid inhalers can cause problems in the mouth and throat such as thrush, a sore throat and hoarse voice. Your child can avoid these side effects by using a spacer with their corticosteroid puffer. You will be given an information sheet by your nurse or doctor about spacers. Your child should also rinse out their mouth after taking this medication (e.g. take in the morning and evening before brushing their teeth).

Most children will grow normally and will have no other side effects from inhaled corticosteroids in usual doses.

Medications for a severe asthma attack:

During a severe attack of asthma, your doctor may prescribe your child some corticosteroid tablets or syrup such as Prednisone, Prednisolone or Dexamethasone. They are given to get your child well quickly and are usually given for 3 - 5 days. Some children may need to be on them for longer, but this is not common. Short treatments with corticosteroid tablets/syrup are safe when given with your doctor's advice.

If you have any concerns regarding corticosteroids, please speak to your doctor.

Symptom controllers

Oxis, Foradile and Serevent

Symptom controllers (also called long-acting relievers) work by relaxing the muscles around the airways. They can take up to half an hour to work, but they keep the airways open for much longer (up to 12 hours).

They are given when a child continues to have problems with their asthma, even though they are taking corticosteroid preventers. They are given every day and are not a replacement for your child's preventer medication. Your child should continue to take their preventer medication as told by your doctor.

Symptom controllers should not be used for quick relief of asthma symptoms or during an asthma attack. Your child should use a reliever at these times.

Combination medications

Seretide (Flixotide and Serevent) and Symbicort (Pulmicort and Oxis)

Combination medications combine a preventer medication and a symptom controller in one device. Your child will still require a reliever medication.

Please read the section on preventers and symptom controllers to learn more about your combination medication.

Medication photographs courtesy of Professor Mike South, Royal Children's Hospital, Parkville, Victoria, 3052.

Giving your child asthma medications

There are different types of devices that can be used so that children can inhale asthma medications into their lungs. If your child is using a puffer, a **spacer** should also be used, as it allows more medication to be delivered to the lungs and lessens the chance of side effects.

A spacer is a special device that looks like a clear plastic football or tube. Puffer medications are sprayed into this device and then inhaled through a facemask or mouthpiece. Spacers come in many shapes and sizes – your choice will depend on your child's medication and ability. Young children will need a small volume spacer with a facemask.

Please refer to the appendix at the end of this booklet for information about spacer use. Information sheets on other devices are available from your nurse educator or from the Asthma Foundation of WA website: www.asthmawa.org.au.

2. Know your child's triggers and avoid those triggers as best you can

It is important to avoid those things that make your child's asthma worse. Know what triggers your child's asthma and do your best to avoid those things (except exercise - see point 6 on page 11). This can be difficult with triggers like colds and flu's, or changes in the weather. However, some triggers like cigarette smoke are possible to avoid (for further information about how to minimise your child's exposure to tobacco smoke, visit www.smokefreebaby.org.au.) If your child tests positive for allergies, speak to your doctor or asthma educator who will be able to give you some information about how to manage them.

3. Visit your doctor regularly

Asthma is a condition that changes

It is important for your child to see the family doctor regularly (even when they are well) to make sure that your child stays healthy. Your doctor will tell you how often to come in and get your child's asthma checked. Your doctor will also check to see that the asthma medications are working properly to keep your child's asthma under control. Sometimes asthma medications will be changed or reduced, depending on how your child's asthma has been.

The "Asthma Cycle of Care" program has been developed by the Commonwealth Government to encourage you to work with your doctor to manage your child's asthma. To find out more about this program, contact the Asthma Foundation of WA on 9289 3600.

4. Have a written Asthma Action Plan

Everyone with asthma should have a written Asthma Action Plan. Before you go home, your doctor will write out an Asthma Action Plan for your child. This will tell you what medications to give your child, what to do when your child's asthma is getting worse and what to do in an emergency. You should bring the written Asthma Action Plan to each doctor's visit. It should be updated whenever your child's medications are changed.

5. Monitor your child's asthma

It is a good idea to keep track of how often you need to give your child their reliever medication and how often they have asthma symptoms. You can write this information in a diary, as it can be difficult to remember. This information will help your doctor tell how well your child's asthma is. It also lets you know whether or not your child's asthma is under control.

Your child's asthma is not under good control if he/she:

1. Wheezes, coughs or has chest tightness at night time; OR

2. Wheezes, coughs or has chest tightness in the mornings when they wake up OR;
3. Needs to use their reliever more than 3 times a week (not including before exercise) OR;
4. Wheezes, coughs or has chest tightness while running, playing or during sport.

If your child has any one of these signs, you need to take them to the doctor, as their asthma medications may need to be changed.

6. Encourage your child to exercise and be active

Asthma shouldn't stop your child from running, playing or enjoying their favourite sport. Exercise is very important for good health, but if your child's asthma is being triggered by exercise, you must let your doctor know. It can be a sign that your child's asthma is not under control, and your doctor may need to make some changes to their asthma medications.

Your doctor may also tell your child to take the following steps, which may help to control asthma while playing sport:

1. Use their reliever puffer 5 - 10 minutes before warming up
2. Warm up for 5 - 10 minutes before sport (stretching and light exercises)
3. Use the puffer during sport if needed
4. Cool down for 5 - 10 minutes after sport (stretching and light exercises)

Are there times when my child shouldn't play sport?

The only time your child should not play sport is if they are unwell (e.g. cold or flu) or when they are having asthma symptoms (wheeze, cough, tightness in the chest or short of breath).

What to do if your child is having an asthma attack

How can I tell if my child is having an asthma attack and what should I do?

An attack can take anything from a few minutes to a few days to develop. It is very important to act quickly if your child is having an asthma attack. Early treatment of an asthma attack can help to stop the attack from becoming more severe.

Any one of the following signs means that your child's asthma is worsening:

1. wheezing
2. keeps coughing

3. a “sucking in” effect between the ribs or at the neck as they breathe
4. breathing faster
5. tummy sucking in and out as they breathe
6. having problems talking because they are getting short of breath

If any of the above is happening, your child needs to use their reliever. Follow your doctor's instructions on your child's written Asthma Action Plan.

If your child needs their reliever medication **more than every 3 hours** to help with a wheeze, cough or shortness of breath, they are having an **ACUTE** asthma attack.

Follow the instructions on your child's written Asthma Action Plan and see a doctor or bring your child into hospital **straight away**.

If you were given some oral corticosteroids (e.g Redi-pred, Predmix) by your doctor to use during an asthma attack, then now is the time to give this - unless you have already given some to your child within the last 12 hours.

Early treatment now can stop the attack from getting more severe.

If your child has any of the following signs they are having a SEVERE asthma attack

1. Exhausted/can't walk more than a few steps OR;
2. Unable to speak more than one or two words per breath OR;
3. Little improvement after using reliever (or the reliever is needed more than every 30 minutes) OR;
4. Blue at the lips OR;
5. Breathing fast, sucking in around the tummy, ribs or neck OR;
6. The attack is frightening to you or your child.

Young children may appear restless, unable to settle and may have problems feeding due to shortness of breath. They may also have severe coughing and vomiting.

If your child has any of these signs, call an ambulance (dial 000) straight away and follow the emergency Asthma First Aid Plan, which is described on the next page.

Asthma First Aid Plan

Emergency Management

1

Sit the child upright and give reassurance.
Do not leave them alone.

2

Without delay give 4 separate puffs of a **blue reliever** (Ailomir, Asmol, Epaq or Ventolin)*.

The medication is best given one puff at a time using a spacer device**.

Ask the child to take 4 breaths from the spacer after each puff of medication.

3

Wait 4 minutes.

If there is little or no improvement repeat steps 2 and 3.

4

If there is little or no improvement, call an ambulance immediately (dial 000).

Continuously repeat steps 2 and 3 while waiting for the ambulance.

* A Bricanyl Turbuhaler may be used in first aid treatment if a puffer and spacer are unavailable.

** If a spacer is not available, simply use the puffer on its own.

If your child has a nebuliser, you can give reliever medication continuously via the nebuliser, until the ambulance arrives.

The Asthma Foundation of Western Australia

The Asthma Foundation of WA offers free support for all people with asthma and their carers.

Education and Information Services

The Asthma Foundation regularly conducts free two hour 'Ask the Asthma Educator' talks for people with asthma, their family, carers and friends. Phone 9289 3643 to find out more. Free one-to-one asthma clinics can be booked at all Asthma Foundation resource centres. Centres are located at Joondalup, Swan, Armadale, Kwinana and Bunbury as well as at Head Office in West Perth. Please call 9289 3600 to be put through to the centre in your area. Our free telephone education and information service is available weekdays between 8.30am and 5.00pm on 9289 3600 or 1800 645 130.

Asthma Friendly Schools

The Asthma Foundation provides schools with guidelines to assist teachers, parents and students manage asthma at school. Phone 9289 3639 to find out if your child's school is registered.

Asthma Friendly Childcare

To find out more about the Asthma Friendly Childcare Program, please contact 9289 3639.

Asthma Support Group

The Asthma Foundation conducts regular Asthma Support Groups, to give individuals and families an opportunity to meet to share stories and coping strategies with others who live with asthma. To find out about the next meeting, call 9289 3602.

Triple 'E' Activity Days for Kids

The Asthma Foundation runs a fun-filled two day event for children aged 7-12 years called Triple 'E' - combining exercise, entertainment and asthma education. Phone 9289 3645 for more information.

Asthma Shop

If you become a supporter of the Asthma Foundation of WA, you will receive information regularly throughout the year as well as discounts in our Asthma Shop retail range. To enquire about becoming a supporter, please call 9289 3600.

The Asthma Foundation funds asthma research.
We hope to find a cure.

For further information, please contact...

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The Asthma Foundation funds asthma research. We hope to find a cure.

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**Princess Margaret
Hospital for Children**

Thanks go to...

PMH Consultant Physicians Dr Kay Johnston, Dr John Hobday and Dr Barry Clements for their input into the content of the original book.

Appendix - Spacers

A spacer holds the spray from a puffer until your child has breathed it into their lungs. Everyone should use a spacer with their puffers, as it helps to get more of the medication down into the lungs.

Large Volume Spacers

Most children by age 5 years can use a large volume spacer. Large volume spacers are the better spacers to use from this age.

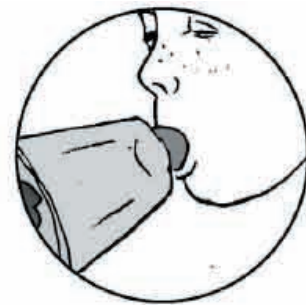


Using a large volume spacer

1. Take the cap off the puffer and shake the puffer well. Place the mouthpiece of the puffer into the end of the spacer.



2. Place the mouthpiece between your child's teeth with lips closed firmly around it.



3. Ask your child to breathe out through their mouth to empty their lungs. Press down on the puffer once.



4. Your child should take one slow deep breath in through their mouth and then hold their breath for 5 to 10 seconds.



Note: If your child is under 5 years of age or is unable to hold their breath for very long, ask them to take 5 slow deep breaths in and out through the spacer. You should hear the valve clicking as your child is breathing in and out.

If a second dose is needed after step 4, repeat the 4 steps.

Never spray any more than one puff of the medication into the spacer at any time. More medication will get into your child's lungs by doing one puff at a time.

Appendix - Spacers

Small Volume Spacers

Small volume spacers are recommended for children under the age of 4 or 5 years. To use a small volume spacer without a mask, follow the same steps as for a large volume spacer. Children under the age of 3 may need to use their small volume spacer with a mask - you will need to follow the steps below. Children over the age of 5 should be using a large volume spacer.



Using a small volume spacer with a mask

1. Take the cap off the puffer and shake the puffer well.



2. Place the mouthpiece of the puffer into the end of the spacer.



3. Gently place mask over mouth and nose so that they are covered well with no gaps around the edges. For children over 3 years, place the mouthpiece between the child's teeth with lips closed firmly around it.



4. Press down on the puffer once and wait for your child to take 5 deep breaths (watch their tummy as they breathe in and out). Encourage mouth breathing which will increase medication delivery into the lungs.



If a second dose is needed after step 4, repeat the 4 steps.

Never spray any more than one puff of the medication into the spacer at any time. More medication will get into your child's lungs by doing one puff at a time.

Appendix - Spacers

How should you look after a spacer?

Static electricity builds up inside a spacer. This makes the medication stick to the inside of the spacer, so your child won't get as much medication down into the lungs.

To get rid of the static, spacers should be washed when they are first bought and then once every week.

Cleaning your spacer:

1. Take the pieces of the spacer apart and soak in warm soapy water for a few minutes.
2. Leave to drip dry without rinsing the soapy water off. Never rub dry, as this creates more static.
3. The detergent will create a thin layer on the inside walls of the spacer, which will help stop static building up.
4. Do not keep in a plastic bag, as this also creates static.

Why use a spacer?

Spacers get more medication down into the lungs, so the medication will work better. Spacers can work just as well as a nebuliser and they are cheaper and easier to carry around, so most children will not need a nebuliser at home.

Less of the medication gets stuck in the mouth and throat when a spacer is used, as opposed to simply using the puffer on its own. This helps to cut down the risk of side effects in the mouth and throat if using corticosteroid preventers. Side effects may include thrush, hoarse voice and sore throat.

