

Adult Asthma Information Pack

This pack has been designed to help you manage your asthma and provides an introduction to the topics below.

Successful management requires

- Education
- Self monitoring
- Effective drug therapy
- Ongoing medical management
- A written Asthma Action Plan

Contents

What is asthma?

6-step asthma management plan

Correct use of devices

3+ visit plan

First Aid for asthma

Monitoring your asthma

Monitoring charts

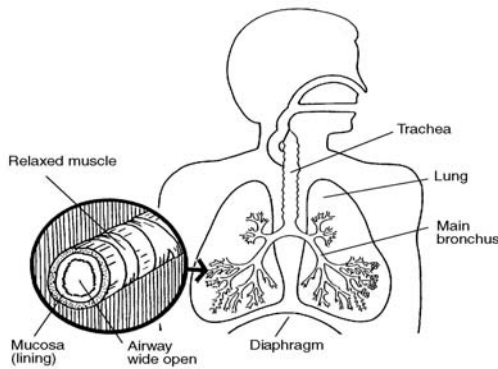
Asthma Action Plan

Contact List

Prince of Wales Hospital	Asthma Educator	Tel: 9382-4641
St George Hospital	Respiratory CNC Asthma Outpatient Clinic	Tel: 9350-1111, page 328 Tel: 9350-2340
St Vincent's Hospital	Respiratory CNC	Tel: 8382-1111 page 6375
Sutherland Hospital	Respiratory CNC	Tel: 9540-7540
Sydney Hospital	Respiratory CNS	Tel: 9382-7551
Asthma New South Wales	www.asthmansw.org.au	Tel: 9906-3233 1800-645 130
National Asthma Council	www.nationalasthma.org.au	Tel: 1800-032 495
National Smoking Quitline		Tel: 131 848

Asthma

The Respiratory System



Air passes through the nose and mouth to the trachea (windpipe). The trachea divides into two bronchi, which carry the air to the lungs. The bronchi then divide into smaller tubes called bronchioles that end in tiny air sacs called alveoli.

The oxygen passes through the alveoli into the blood to be transported around the body. Carbon dioxide passes from the blood into the alveoli, ready to be exhaled.

What is asthma?

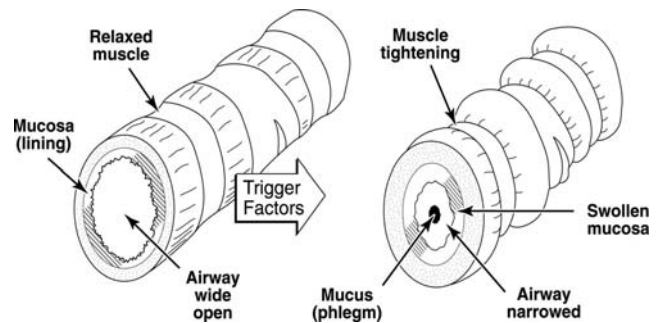
In asthma the airway lining is highly sensitive to irritants (trigger factors).

To understand how asthma affects breathing we need to examine the bronchioles, which have 3 layers:

- outer layer of cartilage giving the bronchi their shape
- middle layer of muscle
- inner lining layer (mucosa).

Airways are not rigid. When irritated, they become inflamed and go into spasm (close up). During an asthma attack narrowing of the airways is due to:

- tightening of the muscle layer, which causes the airways to narrow (bronchospasm)
- inflammation and swelling of the inner lining
- mucus which may clog bronchioles.



Symptoms of asthma include cough, wheeze, shortness of breath and chest tightness.

Trigger Factors

- Allergens; house dust, pollens, animal fur, moulds
- Tobacco smoke
- Occupational triggers; wood dust, flour dust, chemical fumes, fuel fumes, animals, etc.
- Food additives; preservatives (metabisulphite), colourings (tartrazine), flavour enhancer (monosodium glutamate (MSG))
- Strong smells; perfume, paint etc
- Medications; aspirin, non steroidal anti inflammatories (some pain killers), some blood pressure medication, some eye drops
- Respiratory infections; colds, bronchitis
- Changes in the weather, temperature
- Exercise – the one trigger factor that should not be avoided

Smoking and Asthma

Smoking and asthma are a bad combination. Cigarette smoke is one of the most common trigger factors. It can make your asthma control more difficult and can increase the chance of permanent airway damage. Passive smoking is harmful to people with asthma and should be avoided.

6-Step Asthma Management Plan

STEP 1 – Know your asthma severity

The following symptoms describe moderate to severe asthma

- asthma medication needed most weeks of the year
- waking at night with asthma
- needing urgent medical attention for asthma in the past year
- peak flow measurement consistently below expected, despite optimal treatment.

Monitoring by peak flow meter or symptoms gives valuable information about your asthma severity, which will help your doctor individualise your treatment.

STEP 2 – Achieve best lung function

Use the correct combination of medications as prescribed. When at your best there should be:

- no symptoms
- best possible peak flow measurements
- normal chest sounds on examination.

It may take several weeks of medication to achieve your best lung function. Monitor peak flow measurements and symptoms to check your progress.

STEP 3 – Avoid trigger factors

Identify trigger factors so you can avoid them or minimise their effect. These will vary between individuals. Tests (skin prick, RAST) can assist with trigger identification.

STEP 4 – Stay at your best

There are 4 categories of inhaled medication:

- The “preventer” (Flixotide, Intal Forte, Pulmicort, Qvar, Tilade) is the main medication that keeps asthma under control by decreasing airway inflammation, the underlying problem with asthma, and work best if used regularly.
- The “symptom controller” (Foradile, Oxis, Serevent) is taken with a preventer and should never be taken instead of one. These help expand airways working for up to 12 hours.
- The “combination” medications combine a “preventer” and a “symptom controller”. These include Seretide (Flixotide / Serevent) and Symbicort (Pulmicort / Oxis).
- The “reliever” (Aiomir, Asmol, Bricanyl, Epaq, Ventolin) relieves some symptoms, usually for a short time. If reliever medication use is increasing, your asthma may be deteriorating. If you are not taking a preventer or combination medication and are using a reliever more than 4 times per week, you need to see your doctor.

Use the reliever first, followed by the preventer or combination medication (5-10 minutes later). Before your medications run out ensure you have replacements.

STEP 5 – Action plan

With your doctor, work out a plan to:

- Recognise worsening asthma
 - waking at night with symptoms
 - decreasing peak flow values
 - increasing symptoms; cough, wheeze, shortness of breath
 - change in phlegm colour
 - increased reliever medication use, symptoms returning quickly after use
 - decreased exercise tolerance
- Treat it quickly
- Get appropriate medical assistance.

Early attention to worsening asthma can prevent a serious attack. Ask your doctor to complete an individualised written Asthma Action Plan.

STEP 6 – Check asthma regularly

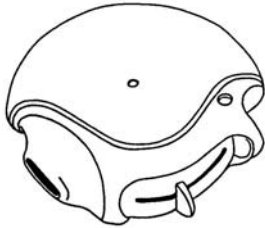
Asthma can be kept under control. Follow your 6-step management plan and see your doctor for regular check-ups, not just in emergencies.

Correct Use of Devices

Using devices incorrectly can result in incorrect doses of medication.

Accuhalers

Accuhalers (Flixotide, Seretide, Serevent) produce a fine powder which is inhaled into the lungs.



1. Check number of doses left in Accuhaler.
 2. Hold Accuhaler in one hand, place thumb of other hand on thumbgrip.
 3. Open Accuhaler by pushing thumbgrip as far as it goes.
 4. Slide lever until it clicks.
 5. Extend neck comfortably.
 6. Breathe out gently and fully - away from mouthpiece.
 7. Put mouthpiece between lips to form a seal.
 8. Breathe in forcefully until lungs are comfortably full.
 9. Remove Accuhaler from mouth and hold breath for 10 seconds or as long as comfortable.
 10. Breathe out slowly.
 11. Close Accuhaler by placing thumb in thumbgrip and sliding it back until cover clicks into place.
- To take a second dose repeat steps 2 to 10.

After using Flixotide and Seretide rinse your mouth well and spit, to stop medication sticking to the mouth and throat, helping to decrease side effects.

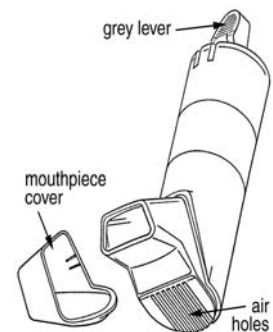
The Accuhaler contains 60 doses. A dose counter on the side displays the doses left. For the last 5 doses, the number is red.

Do not breathe out into the accuhaler as moisture clogs up the powder. Keep Accuhaler dry. Close when not in use.

Autohalers

Autohalers (Airomir, Atrovent, Qvar) produce a fine mist or aerosol that is inhaled into the lungs. Autohalers are breath activated.

1. Unclip mouthpiece cover from back.
 2. Holding Autohaler upright, click grey lever up.
 3. Shake Autohaler well.
 4. Breathe out gently and fully.
 5. Place Autohaler in mouth and seal lips around mouthpiece. Be careful not to block the air holes on bottom of Autohaler with thumbs or hands.
 6. Breathe in with a slow, deep, steady breath.
 7. Take Autohaler out of mouth and hold breath for 10 seconds or as long as is comfortable.
 8. Breathe out gently.
 9. Holding Autohaler upright, lower grey lever.
 10. Replace dust cap.
- To take a second dose, repeat steps 2-9.



When the device is empty medication or propellant discharge will not be heard. The mouthpiece of the Autohaler may be wiped clean with a clean, dry cloth. Do not put the device in water.

Do not stop breathing in when the "click and whoosh" is heard - take a full, deep breath. The "click and whoosh" lets you know that the medication has been released.

Turbuhalers

Turbuhalers (Bricanyl, Oxis, Pulmicort, Symbicort) produce a fine powder of medication that is inhaled into the lungs. After using Pulmicort and Symbicort rinse your mouth well and spit. Before use, check the content indicator on the side of the device.



1. Check content indicator window on side of device.
2. Unscrew cap and lift off.
3. Hold Turbuhaler upright and turn grip to right as far as it will go away from you
4. Twist grip back to left, towards you until it clicks.
(Click indicates the dose is ready to inhale.)
5. Breathe out gently and fully - away from mouthpiece.
6. Place mouthpiece between lips and form a seal.
7. Breathe in quickly and deeply until the lungs are comfortably full.
8. Remove device from mouth before breathing out.
9. Replace cap and screw shut.

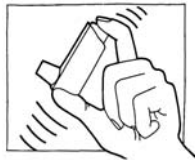
To take a second dose, repeat steps 3 - 8.

The dose indicator window on the side of the Bricanyl, Oxis and Pulmicort Turbuhalers should be checked regularly. When a red line appears in the window, there are approximately 20 doses left. When red fills the window, the Turbuhaler is empty. The Symbicort Turbuhaler counts down the number of doses left. The rattling sound heard when shaking the Turbuhaler is the drying agent built into the base. *It is not medication.* The Turbuhaler should be kept dry. Ensure the cap is replaced securely after use. Avoid breathing into the Turbuhaler.

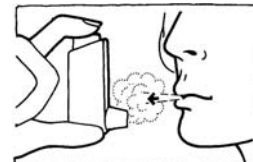


Metered Dose Inhalers

These inhalers (Airomir, Asmol, Atrovent, Atrovent Forte, Flixotide, Intal, Intal Forte, Qvar, Seretide, Serevent, Tilade, Ventolin) produce a fine mist or aerosol that is inhaled into the lungs

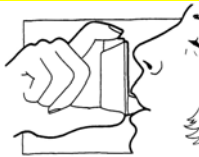


1. Remove dust cap and check that canister fits securely into mouthpiece.
2. Shake inhaler vigorously.
3. Hold inhaler upright.
4. Extend neck comfortably.



5. Breathe out gently and fully.

6. Place inhaler between lips and form a seal.



7. As you begin to breathe in, press canister firmly. Continue to breathe in slowly until lungs are full. If unable to press down on canister with one hand, two hands can be used. Hold breath for 10 seconds or as long as is comfortable.

8. Breathe out gently.

Wait 30 to 60 seconds between puffs of reliever medication. It is not necessary to wait between puffs of preventer medication.

Care and cleaning of inhaler

Clean the inhaler weekly (Intal, Intal Forte and Tilade inhalers should be cleaned daily).

1. Remove metal canister from plastic mouthpiece. Do not wash metal canister.
2. Rinse mouthpiece and dust cap under warm running water.
3. Shake off excess water and allow to dry.
4. When inhaler is completely dry, reassemble. Ensure metal canister is sitting securely in inhaler.

Qvar inhalers should only be wiped clean and not put into water.

Ensure the dustcap is on the inhaler when not in use. If the inhaler has not been used for a week or more, press inhaler once to test it is working.

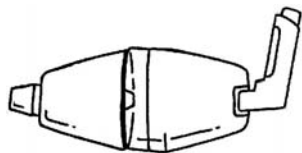
If using a preventer medication rinse mouth well and spit after use.



Spacer Devices

Inhalers are most effective used with a spacer device. These increase medication delivered to the lungs and decrease the amount sticking to the tongue and throat, reducing side effects. Use only one puff of medication in the spacer at a time.

1. Join the 2 halves of the spacer by matching the "lug(s)". Small volume spacers are in one piece and do not require assembling.
2. Remove cap, shake inhaler vigorously.



3. Put mouthpiece of inhaler into the hole in the spacer at the end opposite the mouthpiece.
4. Place lips around mouthpiece. While exhaling fully, release 1 puff of medication, by pressing canister firmly. If needed, use two hands to press canister.
5. Breathe in slowly and deeply through mouth until lungs are comfortably full.
6. Hold breath for 10 seconds **OR** breathe in and out normally 5 times.



To take a second dose, wait 30 to 60 seconds and repeat steps 4-6.

Cleaning the Spacer Device

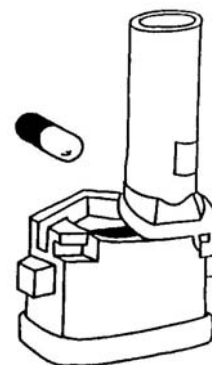
Medications will discolour the spacer device. To wash the spacer (once a fortnight):

1. Separate the halves
2. Swish in hot soapy water
3. Shake off excess moisture and soap - do not rinse, as soap helps to reduce static charge
4. Allow to drip dry - do not cloth dry as the plastic will become charged and medication will stick to it rather than passing through into your airway.

Aerolisers

This device (Foradile) pierces a capsule of medication releasing a fine powder that is inhaled into the lungs.

1. Pull off cap.
2. Hold base of aeroliser and twist mouthpiece in direction of arrow.
3. With dry hands place one capsule in capsule-shaped slot in base of aeroliser. Ensure the capsule is lying flat in bottom of slot.
4. Twist mouthpiece to closed position.
5. Keep aeroliser upright, firmly squeeze the two blue buttons once and release quickly, piercing the capsule.
6. Breathe out gently and fully (away from mouthpiece).
7. Extend neck and seal lips around mouthpiece.
8. Breathe in quickly and deeply until lungs are comfortably full (a whirring sound should be heard – this is the capsule spinning in the device releasing powder).
9. Hold breath for 10 seconds or as long as is comfortable.
10. Breathe out slowly.
11. Open device, check for powder remaining in capsule. If powder remains, repeat steps 6 to 9.
12. After each use, tip out empty capsule, close mouthpiece and replace cap.



Clean the aeroliser by wiping mouthpiece and capsule compartment with a dry cloth or a soft clean brush. Do not put device into water.

Place capsule in the device just before use. Do not exhale into the device as moisture may clog up the powder. Capsules may be affected by warmth and cold. Keep them sealed in the foil and in their box in a cool, dry place.

The Asthma 3+ Visit Plan

The Plan involves at least 3 visits to your GP over 4 months to improve your asthma management. All 3 visits are important, even when you are well. Your GP needs to assess how asthma affects your life, not just during an attack. The Plan will involve no extra costs - only what it normally costs to see your GP and buy medicines.

VISIT 1

Your GP will:

- ask about your asthma, medications and management
- ask what you know about asthma
- show you how to use your devices
- examine you and possibly perform breathing tests. You may be asked to use a peak flow meter and record your results.

VISIT 2 - (2 weeks later). Your GP will:

- review the peak flow record
- examine you and may perform breathing tests
- complete a written Asthma Action Plan
- ask about trigger factors and may organise tests
- discuss your understanding of asthma.

VISIT 3 - (4 weeks later)

- your GP will discuss progress and review your Asthma Action Plan and test results

It is better to see the same GP each visit, enabling your GP to know you and understand your asthma. Your GP may refer you for specialist advice.

First Aid for Asthma

1. Sit the person comfortably upright. Be calm and reassuring.
2. Give 4 puffs of a reliever (Airomir, Asmol, Epaq, Ventolin) through a spacer, if available. Use 1 puff at a time and ask the person to take 4 breaths from the spacer after each puff. Use the person's own inhaler if possible. If not, use the First Aid kit inhaler or borrow one from someone else.
3. Wait 4 minutes. If there is no improvement, give another 4 puffs.
4. If little or no improvement, **CALL AN AMBULANCE IMMEDIATELY (DIAL 000)**, and state that the person is having an asthma attack. Keep giving 4 puffs every 4 minutes until the ambulance arrives. Children: 4 puffs each time is a safe dose. Adults: up to 6-8 puffs every 5 minutes may be given for a severe attack while waiting for the ambulance.

WITH SPACER



- Shake inhaler, insert mouthpiece into spacer.
- Place spacer mouthpiece in mouth and fire 1 puff.
- Ask the person to breathe in and out normally for 4 breaths.
- Repeat in quick succession until 4 puffs have been given.

WITHOUT SPACER



- Shake inhaler.
- Place mouthpiece in mouth. Fire 1 puff as the person inhales slowly and steadily.
- Ask the person to hold that breath for 4 seconds, then take 4 normal breaths.
- Repeat in quick succession until 4 puffs have been given.

WHAT IF IT IS THE FIRST ATTACK OF ASTHMA?

- If someone collapses and has difficulty breathing, CALL AN AMBULANCE IMMEDIATELY, whether or not the person is known to have asthma.
- Give four puffs of a reliever and repeat if no improvement.
- Keep giving 4 puffs every 4 minutes until the ambulance arrives.
- No harm is likely to result from giving a reliever to someone who does not have asthma.

Monitoring Asthma

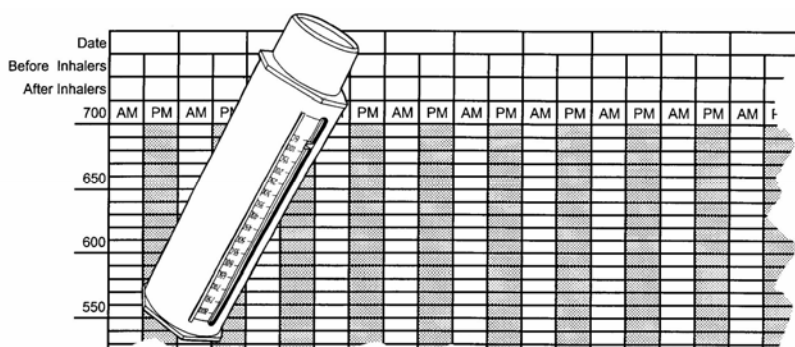
Measuring asthma by how you feel does not give an accurate picture. As asthma can worsen slowly, deterioration may not be noticed. To assess your airways, a Peak Flow Meter is used. If your peak flow is decreasing, your asthma may be worsening and your written Asthma Action Plan should be used.

- Peak flow should be taken **before** medication, morning and evening, at the same time each day.
- Use maximum effort each time to give reliable results

How to use your Peak Flow Meter

1. Move marker to base of scale.
2. Hold meter lightly with fingers away from movement of the marker.
3. Take as deep a breath as possible, seal mouthpiece tightly with lips. Blow as hard and fast as you can, keep meter level to ground.
4. Note reading on scale.
5. Return marker to base of scale. Repeat.
6. Record highest of 3 readings
7. **If using *reliever medications* regularly - use your inhaler(s).**
8. Wait at least 10 minutes
9. Repeat steps 1 - 6

How to Record Your Results



- Record date and time of the test.
- Different colours can show before and after medication readings
- Also include, changes in symptoms or medication, unusual activities or changes in diet.

Over time a pattern may emerge linking particular activities with drops in peak flow or an increase in symptoms. This may help to identify triggers. Using your peak flow meter will familiarise you with your asthma patterns.

Symptoms Monitoring

Monitoring asthma is possible by scoring your asthma symptoms. Rate symptoms of deteriorating asthma, eg, sleep disturbance, cough, wheeze, breathlessness, reliever medication use. Recognition of worsening asthma symptoms is vital for effective control of asthma.

Symptoms Monitoring Chart

Date																			
Peak Flow Meter Readings																			
	AM - Before Meds																		
	AM - After Meds																		
	PM - Before Meds																		
	PM - After Meds																		
Wheeze																			
None	0																		
Occasional wheeze	1																		
Frequent wheeze	2																		
Severe attack of asthma	3																		
Cough																			
None	0																		
Occasional	1																		
Frequent	2																		
Most of the time	3																		
Sleep Disturbance																			
Slept well	0																		
Slept but woke once with wheeze or cough	1																		
Woke twice or more with asthma	2																		
Awake most of the night	3																		
Breathlessness on Exertion																			
None	0																		
Mild	1																		
Moderate	2																		
Severe	3																		
Nasal Symptoms																			
None	0																		
Mild	1																		
Moderate	2																		
Severe	3																		
Reliever Medication Use (Puffs a day)																			
Total Daily Symptoms Score																			
Medications Record	Name of medication																		
(Record all medications used during the last 24 hours)																			

Peak Flow Monitoring Chart

