

Asthma

Check list

Before discharge from hospital, you will be provided with the following:

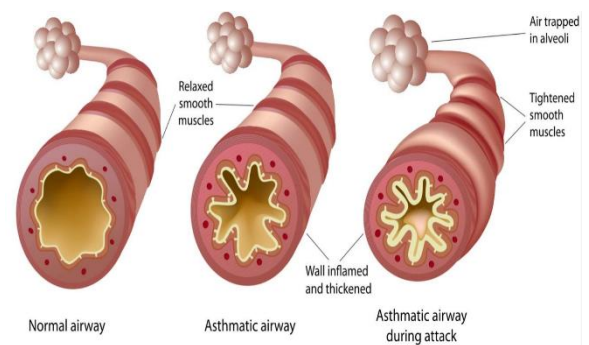
1. Inhaler, spacer, mask (if applicable) and written instructions on how to use and care for your spacer. A nurse or doctor will have demonstrated the correct spacer technique.
2. Asthma Action Plan, given and explained.
3. Follow up advice with your GP. If you are being followed up at Perth Children's Hospital, this will be posted to you a month prior.
4. Any additional medication to continue at home that has been prescribed.

What is asthma?

Asthma is a disease of the airways in the lungs. It affects the small airways called "bronchioles".

Asthma affects about 10% of the population. Many children diagnosed with asthma in pre school years will grow out of it.

Children with asthma have sensitive airways. When the airways are exposed to certain triggers, they react as follows.



From Children's Hospital of Philadelphia

- The muscles in the airway squeeze tight, narrowing the airway.
- The lining of the airway becomes swollen, further narrowing the airway.
- The airways produce extra mucus.

We have thousands of these small airways and they can easily obstruct.

Symptoms of asthma

- **Coughing** – may be a dry cough at first.
- **Wheezing** – a whistling sound heard as the child tries to push air out of the tight, narrow airway.
- **Shortness of breath** – breathing may become fast and shallow.
- **Tight chest** – it may feel like a tight band around the chest, younger children may feel like "an elephant is sitting on their chest".

Younger children may complain of tummy pain, this is because their intercostal (between the ribs) muscles are not well developed and they use their diaphragm muscle to breathe. The diaphragm is a dome shaped muscle which separates the chest from the abdomen. This may also cause vomiting.



Asthma attacks may be slow onset or deteriorate in a few hours.

Early treatment may stop the attack from getting worse.

Worsening asthma requires prompt treatment.

Asthma action plans

Asthma action plan for children	
When well <ul style="list-style-type: none">No asthma symptoms of cough, wheeze, chest tightness or increased work of breathingCan play and exercise without asthma symptomsNot waking at night due to asthma symptomsNeed reliever puffer less than 2 times a week, not including before exercise	What should I do? <p>Asthma preventer medication (tick applicable)</p> <p><input type="checkbox"/> Nil</p> <p><input type="checkbox"/> Preventer inhaler mcg puffs times a day</p> <p><input type="checkbox"/> Oral Montelukast.....mg once a day</p>
When unwell <ul style="list-style-type: none">Starting to get asthma symptomsAsthma symptoms with a coldWaking at night due to asthma symptoms	What should I do? <p>Give (reliever). Up to 3 – 4 hourly as needed:</p> <p><input type="checkbox"/> 2 – 6 puffs via spacer (less than 6 years old)</p> <p><input type="checkbox"/> 2 – 12 puffs via spacer (6 years or older)</p> <p><input type="checkbox"/> continue daily preventer <input type="checkbox"/> change preventer</p>
Severe <p>Needing reliever more than every 3 hours for one or more of the following:</p> <ul style="list-style-type: none">WheezeChest tightnessSucking in around neck, ribs or tummy with breathing	What should I do? <p>Keep giving puffs of (reliever) as needed and see a doctor or come into hospital AS SOON AS POSSIBLE.</p> <p>If prescribed, start oral steroid as advised by your doctor.</p>
Danger signs <ul style="list-style-type: none">Needing reliever more than every half hourBlue lipsDifficulty speaking or feeding due to breathlessnessFrightened or exhausted	What should I do? <p>CALL AN AMBULANCE on 000</p> <p>While waiting stay calm and give: (reliever)</p> <p>• 4 puffs every 4 minutes • Use a spacer if available</p>
Patient name: Compiled by: Signature: Date:	

Asthma action plan for young adults (>12yo)		Perth Children's Hospital
When well <ul style="list-style-type: none">No asthma symptoms of cough, wheeze, chest tightness, shortness of breathCan exercise without asthma symptomsNot waking at night due to asthma symptomsNeed reliever medication less than twice a week (not including before exercise)	What should I do? <p>Asthma preventer medication (tick applicable):</p> <p><input type="checkbox"/> NIL</p> <p><input type="checkbox"/> mcg, take puffs twice a day</p> <p><input type="checkbox"/> Symbicort rapihaler 150/3mcg or 100/3mcg, 2 puffs twice a day</p> <p><input type="checkbox"/> Symbicort turbuhaler 100/6mcg or 200/6mcg inhalations twice a day</p> <p><input type="checkbox"/> Montelukast tablet mg once a day</p>	
When unwell <ul style="list-style-type: none">Starting to get asthma symptomsAsthma symptoms with a coldWaking at night due to asthma symptoms	What should I do? <p><input type="checkbox"/> Give reliever therapy 2-12 puffs via a spacer every 3-4 hours as needed or</p> <p><input type="checkbox"/> Symbicort rapihaler 50/3 or 100/6 mcg 1-2 puffs every 3-4 hours or</p> <p><input type="checkbox"/> Symbicort turbuhaler 100/6 or 200/6mcg 1 inhalation every 3-4 hours day</p> <p><input type="checkbox"/> Continue daily preventer <input type="checkbox"/> Change preventer</p>	
Severe <p>Needing reliever therapy more than every 3 hours for one or more of the following:</p> <ul style="list-style-type: none">WheezeChest tightnessIncreased work of breathing	What should I do? <p><input type="checkbox"/> Give Symbicort to a maximum 10 inhalations a day and/or</p> <p><input type="checkbox"/> Give 12 puffs as often as needed and see a doctor or come to hospital as soon as possible</p> <p><input type="checkbox"/> If prescribed, start oral steroid as advised by your doctor</p>	
Danger signs <ul style="list-style-type: none">Needing reliever more than every half an hourDifficulty speaking due to breathlessnessFrightenedExhaustedBlue around the lips	What should I do? <p>CALL AN AMBULANCE on 000</p> <p>• While waiting, try to stay calm and give Salbutamol (Ventolin) 4 puffs every 4 minutes and use a spacer if available</p>	
Patient name: Compiled by: Signature: Date:		

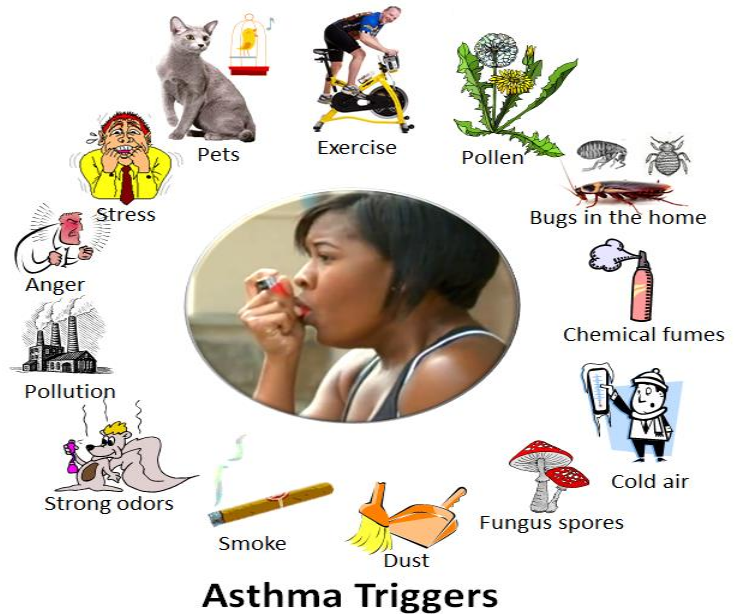
You should have your Asthma Action Plan reviewed every 12 months or whenever you have a change in medication. Your child's school or day-care will require a copy for their files. Your Asthma Action Plan will tell you what medications your child needs to stay well and what medication to take at the start of an illness/asthma exacerbation.

Asthma triggers

Asthma is triggered by a variety of things; some people have a lot of triggers; some only 1 or 2. The airways react when exposed to certain triggers making breathing difficult. If symptoms develop, follow your Asthma Action Plan.

Respiratory viruses

The most common trigger for asthma in children, more common in the colder months and difficult to avoid. If your child develops symptoms of asthma with a cold, follow your Asthma Action Plan.



Cold air/weather changes

Breathing in cold dry air or for some people humid air can trigger an asthma attack.

Exercise

Exercise and play are healthy activities that should not be avoided. To manage this, your child should take 2-4 puffs of their blue reliever puffer 5-10 minutes before exercise and ensure they do some warmup exercises. Always have your reliever on you and if this is an ongoing issue, see your doctor to review their medication regime.

Cigarette smoke/vapes/wood fire/bush smoke

Children who are exposed to passive smoking have a higher risk of developing wheezing and may predispose them to developing asthma. ALWAYS keep the house and car smoke free. Wood fires can induce asthma and are best avoided. During bush fires/burn off's when the air is smoky your child may need reliever.

Pets

The allergen from pets is from the hair, skin scales and saliva. If your child is allergic to the pet, symptoms include a runny nose and itchy eyes. To minimise contact with the pet, wash the pet regularly and vacuum weekly. Keep the pet out of the bedroom to reduce exposure.

House dust mites

Dust mites live in furnishings, soft toys and carpets. If your child is allergic, minimise stuffed toys on the bed, remove carpet from the bedroom if applicable. Sheets can be hot washed or add tea tree oil to washing.

Grasses and pollens

Are airborne allergens and allergic responses result in runny nose and itchy eyes. The most effective treatment is a steroid nasal spray, as it is difficult to avoid.

Other triggers

Strong chemical smells, some complimentary therapies e.g. royal jelly and echinacea and anxiety.

Allergy testing can only be done by skin prick testing or a blood test by a specialist allergy clinic. Kinesiology and other complementary testing for allergy are not clinically proven or safe and can lead to costly and inaccurate results.

Treatments for asthma

Reliever medication

- Blue inhalers.
- They work quickly to relax the tight muscles in the airways and give quick relief from chest tightness, cough or wheeze.
- Should only be given when needed.
- Possible side effects: “the shakes”, a rapid heartbeat and hyperactivity. These side effects only last for a few hours.
- Examples are Salbutamol and Terbutaline (Ventolin®, Asmol®, Airomir®, Bricanyl®).



Tablet preventer therapy

- Montelukast (Singulair®) is a non-steroidal preventer tablet. It can be used for first line therapy or as an add on. It may be effective for children with exercise induced asthma or children with allergies.
- Most children tolerate Montelukast without any side effects, if side effects occur cease immediately and speak to your GP about an alternative.
- Possible side effects: aggressive behaviour, night terrors, anxiety and mood changes, sleep walking.



Inhaled preventer medication

- Preventer inhalers have “autumn” colours.
- They work slowly to reduce swelling and mucus in the airways.
- They need to be taken everyday as prescribed.
- Possible side effects: sore throat, hoarse voice, oral thrush. These side effects are rare in children due to the lower doses prescribed. To minimise the risk, rinse and spit after inhalation.
- Examples are Pulmicort®, Flixotide®, Qvar® and Alvesco®.



Combination inhalers

- Combination inhalers for asthma combine a preventer and a long-acting reliever medication.
- There are several combination inhaler devices available, your doctor or asthma nurse will discuss with you which ones are the most suitable.
- Combination inhalers include Seretide® and Symbicort®.



Inhalation devices

- Some of the inhalers available include metered dose inhalers, turbuhalers, accuhalers, autohalers, rapihalers and ellipta's.
- Dry powder devices are only suitable for children aged > 8 years including turbuhalers, accuhalers and ellipta's.
- Metered dose inhalers should be given with a spacer device.



Acute management

- For severe episodes of asthma, an oral steroid may be prescribed for 1-5 days, depending on the severity and duration of the attack.
- Possible side effects: increased appetite, labile (unstable) behaviour. These side effects will cease once the course of medication is ceased.

Is your child's asthma under control?

Any of the following symptoms when your child is well indicates poor asthma control.

- Coughing at night
- Chest tightness on wakening
- Waking up tired or falling asleep during the day
- Cough or wheeze with exercise
- Unable to keep up with peers when you exercise due to asthma
- Using reliever therapy more than twice a week, not including before exercise
- Missing school or work because of asthma
- Requiring multiple GP or hospital visits because of asthma
- Requiring multiple courses of oral steroids

See your doctor or asthma specialist for advice on getting their asthma under better control.

Contacts and resources

Please do not hesitate to ask questions if you do not understand or need more specific information. Resources in languages other than English are available through the PCH General Paediatric nurses.

- **PCH switchboard:** 6456 2222
- **Department of General Paediatrics:** 6456 5671
The clerical staff will forward your call to one of the nursing staff

Asthma WA

- Monday to Friday 9am to 5pm – free telephone advice
- Telephone: 9289 3600
- Free call 1800 ASTHMA (1800 278 462)
- PO Box 864 West Perth 6872
- Email: ask@asthmawa.org.au

Useful contacts

- Your GP
- Health Direct 1800 022 222
- Quitline for support with quitting smoking 13 78 48
- Australian Society for Immunology and Allergy (ASCI) www.allergy.org.au for resources relating to allergies



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