Asthma Information Pack
For patients, parents and carers
Introduction
This pack has been produced by the Asthma Nurses at PMH to help you manage your child’s asthma at home. We have used the best evidence based on information currently available and information will be updated on a regular basis. We recommend you read the information pack and also speak to your own doctor, the asthma nurses or the staff caring for your child in PMH.

Please do not hesitate to ask questions if you do not understand or want more specific information.

Check List
Before discharge from the hospital, a PMH health professional will provide the following:

• Asthma education.
• Puffer and spacer demonstration and a written instruction sheet for both
• Asthma Action Plan - including instructions on medications to take after discharge and when to see your own doctor
• Follow up appointment - if you are going to be seen in Outpatients after discharge from PMH, an appointment date and time will be posted to you.

You should also have:

• Your child’s spacer (and mask if applicable).
• Additional inhalers and any additional medications or a prescription - if applicable
What is asthma?

Asthma is a disease of the airways in the lungs. It affects the small airways which are called “bronchioles”.

About one in nine children and about one in ten adults in Australia have asthma.

Children with asthma have “twitchy” or sensitive airways. When the airways are exposed to certain triggers, the airways react and asthma symptoms develop.

The changes in the airways are:

• The muscles in the airways squeeze tightly
• The lining of the airway becomes red and swollen
• The airways produce lots of mucus.
  All this leads to airway narrowing.

A diagnosis of likely asthma is based on the following criteria:

• Multiple wheezing episodes (you can have two - three wheezy episodes and not be diagnosed with asthma).
• Family history of asthma, eczema or hay fever
• The cough and wheeze improve in response to reliever medication

What is asthma?

• Coughing - may be a dry cough at first
• Wheezing - a whistling or high pitched sound which may be heard as the child tries to push air out of their narrow tight airways
• Shortness of breath - breathing may become quicker and shallow. This leads to breaths out which are prolonged and forced
• Tight chest - younger children may describe tummy ache, due the work of the “tummy” muscle (diaphragm) to assist with the work of breathing
• Vomiting - in some asthma attacks, the child may vomit.

In worsening asthma, which may take a few hours to a couple of days to develop, you may notice the following:

• Sucking in around the ribs, tummy or throat
• Continuous coughing
• Rapid heartbeat
• Increased effort to breathe
• Problems talking because they are so short of breath

Early treatment may stop the attack from getting worse. Worsening asthma requires prompt treatment.
Asthma attack severity guide

Mild attack
- Cough
- Quiet wheeze
- Little breathing difficulty
- Able to speak in sentences.

Moderate
- Persistent cough
- Loud wheeze
- Obvious difficulty breathing (drawing in at tummy or throat)
- Only able to speak a few words at a time.

Severe
- Very distressed and frightened
- Gasping for breath
- Unable to speak more than single words
- Working very hard to breathe
- Sucking in at the throat and tummy a lot.

Life threatening
- Unable to move around
- Unable to speak
- Pale, blue around the lips
- No wheeze heard.

All severe or life threatening attacks require IMMEDIATE medical attention.

Call 000 for an ambulance and follow the asthma first aid plan.

1. Sit the child up and reassure. **Do not leave alone.**
2. Give four puffs of the blue reliever puffer, one puff at a time through a spacer. Take four breaths in and out for each puff. Use the puffer on its own if no spacer is available.
3. Wait four minutes.
4. Keep giving the blue reliever puffer one puff at a time until the ambulance arrives.
Asthma Triggers

Asthma is triggered by a variety of things. Some children will have a lot of triggers; others may only react to one or two. The airways of a child with asthma react when they are exposed to their triggers. Keeping a note of when your child gets symptoms of asthma may help you to identify what their triggers are. Some triggers are easier to avoid than others.

Colds and flu – the most common trigger for asthma attacks in children. They are more common in the winter months and difficult to avoid. If your child develops signs of asthma with a cold, follow your asthma action plan.

Smoke - young children who breathe in the cigarette smoke of people around them (passive smoking) have a higher risk of wheezing. Not only can it trigger asthma, but it can predispose children to developing asthma, which they may not have developed had they not been exposed to smoke. Smoking during pregnancy can effect lung development and increases the risk of the child developing asthma. Make your house and car smoke free at all times. Opening doors and windows will not protect children from second hand smoke. If you need help to quit smoking, speak to your GP or ring the Quitline on 131 848. The asthma nurses have information packs on quitting smoking.

Exercise/Play - exercise and play are healthy activities and should not be avoided. If exercise is a trigger, they should take their blue puffer 5-10 minutes before sport and do some warm up exercises. If the asthma symptoms persist, ask your doctor to review their asthma medications.

Wood fires and bush smoke - wood fires can induce asthma and are best avoided. Consider using electricity or flued gas fires. During bush fires, when the air is smoky, your child may need reliever medication if symptoms develop. Follow your asthma action plan.

Weather changes - humid weather or breathing in cold air may induce asthma symptoms.

Medications - some medications such as aspirin may trigger asthma, although this type of reaction is rare in children. Royal Jelly and Echinacea may also contribute to asthma. Always discuss complementary therapies with your doctor.

Foods and additives - food allergies causing asthma are rare. Foods should not be eliminated from the diet unless there is a proven allergy. Foods more likely to trigger an allergic response include peanuts, seafood, eggs, cow’s milk, wheat and soy. Additives that may cause asthma include: Sulphites - a preservative numbered 220-228, Tartrazine - yellow food colouring number 102 and Monosodium Glutamate (MSG), which is a flavour enhancer, numbered 620-625.
Chemicals and strong smells - fumes from paint, cleaning products such as bleach and perfumes may trigger asthma symptoms. Avoid exposure to these in confined spaces without adequate ventilation, e.g. an open window.

Allergens - allergy occurs as a result of a person’s immune system reacting to certain substances, such as grasses, pollens, dust, mould and pets. An “allergen” is a substance which causes the allergic response. Allergy testing can only be done accurately by a blood test or skin prick testing. These tests must be done by a specialised allergy clinic. Your doctor can organise this if this is indicated. Vega testing, kinesiology and other complementary tests for allergy are not clinically proven and may lead to costly and inaccurate results.

House dust mite (HDM) - HDM live in furnishings and carpets. They live on skin scales. Simple strategies to reduce HDM include washing the sheets in hot water once a week (or adding tea tree oil or eucalyptus oil to the wash), damp dusting and removing soft toys from the bed. Further strategies can be discussed with your Asthma Nurse or the Asthma Foundation.

Pets/Pests - common pets and pests that cause allergy and asthma are cats, dogs and cockroaches. The allergen is from the skin scales, saliva, hair and faecal material. It does not matter whether they are long haired or short haired pets, they can all cause allergies. There is no consistent evidence that early exposure to or avoidance of pets protects against developing an allergy to that pet. If the family already has pets, it is not necessary to remove the pet from the house, unless there is a proven allergy. If allergic, minimise contact with the pet, and keep the pet out of the bedrooms and living areas, wash the pet regularly and vacuum floors weekly.

Pollens and grasses - are airborne allergens. Allergic responses to pollens and grasses usually result in symptoms of hay fever such as a runny, itchy nose and red itchy eyes. Many people who have hay fever also have asthma and find exposure to these triggers worsen their asthma. It may be worse in spring and windy days or after thunderstorms. The most effective treatment for hay fever may be a nasal steroid spray, discuss with your doctor how troublesome symptoms are and appropriate treatment.
Treatments

Relievers (Blue coloured)
• Work quickly – within a few minutes
• Open the airways by relaxing the tight muscles. Gives quick relief from cough, wheeze and shortness of breath symptoms
• Should be given only when needed.

Side effects: the “shakes”, a rapid heartbeat, hyperactivity in children. These side effects only last for a few hours.

Preventers (Autumn colours)
• Work slowly
• Reduce the swelling and mucus in the airways and make the airways less sensitive or “twitchy”
• Must be taken everyday as directed to be effective.

Side effects: hoarse voice, sore throat or thrush in the mouth (rarely seen in children due to the lose doses used). Potential side effects can be reduced by using a spacer and rinsing the mouth out after use.

Singulair® is a preventer medication in tablet form. It is taken once a day. It is not a steroid. It is used in mild to moderate asthma and seems to benefit children whose asthma is allergy or exercise based.

Symptom Controllers (Green)
• Are long acting medications to relieve symptoms of asthma
• Work by opening the airways and keeping them open for 12 hours
• Used in conjunction with preventers, usually as a combination inhaler

Side effects: The “shakes”, a rapid heartbeat, hyperactivity.

Combination Inhalers (Purple or Red & White)
These inhalers combine a preventer and symptom controller in one inhaler.

Prednisolone tablets/Redipred® syrup
Is a steroid medication. Is used for acute attacks of asthma, which is not responding to regular reliever medication.

Prednisolone reduces the swelling and mucus in the airway. It takes about four hours to start working. It is usually given once a day, for three days, with food. In severe attacks, you may be given a longer course.

Side effects: increased appetite, weight gain, moodiness.
**Immunotherapy**

Children with a severe allergy may benefit from immunotherapy. This is best suited to children who do not have multiple allergies. Discuss this with your doctor, asthma nurse or specialist if you are considering it.

**Spirometry**

Your doctor may order a breathing test called spirometry which measures airway obstruction and can be used to monitor response to medication. It can be done by most children from about six years of age.

**Asthma Inhalers**

Asthma medications are mostly given by inhalation. This way, the medication reaches the airways most effectively.

There are several asthma medication devices available:

**Metered Dose (MDI)**

Metered Dose Inhalers are aerosol medications and are best given through a spacer device. There are two sizes available, small volume spacers for children up to five years of age and large volume spacers for children more than five years old and adults.

**Accuhalers and Turbuhalers**

Accuhalers and Turbuhalers are dry powder devices that can be used by children older than eight years of age. The nurse or doctor looking after your child will give you the appropriate inhaler device instruction sheet.

**Autohalers**

Autohalers are breath activated aerosols, that can be used effectively in children older than eight years of age.
Is your asthma under control?

If you have any of the following symptoms when you feel well, see your doctor for review to look at ways of getting better control of your asthma.

• Coughing at night
• Chest tightness first thing in the morning
• Waking up tired or falling asleep during the day
• Cough or wheeze with exercise
• Unable to keep up with others when you exercise due to asthma
• Using reliever medication more than two times a week, not including before exercise
• Missing school or work because of asthma
• Requiring multiple GP/hospital attendances because of asthma symptoms
• Requiring multiple courses of oral steroids.

Asthma action plans

It is important that you understand how to manage your child’s asthma. Asthma symptoms can vary from time to time; you should have regular review with your doctor, who will give you an asthma action plan.

This will tell you what medications to take and when, what to do if your child develops symptoms of asthma, how to recognise an asthma attack and when you need to seek medical advice. It is important to have your asthma action plan reviewed at least every six months, especially if their medications change.

- Asthma Action Plan For Children

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<thead>
<tr>
<th>When Well</th>
<th>When Unwell</th>
<th>Severe</th>
<th>Danger Signs</th>
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<tbody>
<tr>
<td><strong>What should I do?</strong></td>
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<tr>
<td>Preventer/Combination Medication:</td>
<td>Starting to get a tight cough, wheeze or chest tightness</td>
<td>Needing reliever more than every 3 hours for one or more of the following:</td>
<td>Needing reliever more than every 1/4 hour, OR</td>
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<td>Blue lips, OR</td>
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<td>Difficulty speaking or feeding due to breathlessness OR</td>
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<td>Frightened OR</td>
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<td>Exhausted</td>
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<tr>
<td>No wheeze, cough or chest tightness</td>
<td>Increased asthma with a cold</td>
<td>Wheeze</td>
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<tr>
<td>Can play and exercise without wheeze, cough or chest tightness</td>
<td>Waking at night with asthma</td>
<td>Chest tightness</td>
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<tr>
<td>Need reliever puffer less than 2 times a week (not including before exercise)</td>
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<td>Sucking in around neck, ribs or tummy with breathing</td>
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<tr>
<td>Not waking at night due to asthma symptoms</td>
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- Dr name: ___________________________ Ph: ___________________________ Signature: ___________________________ Date: ___________________________

- Patient name: ____________________________________________

Take this plan with you when you next visit your doctor
Contacts and Resources

Please do not hesitate to ask questions if you do not understand or want more specific information.

PMH Asthma nurses contact details are:
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Asthma Foundation of WA (AFWA)
9289 3600 or 1800 645 130 reception@asthmawa.org.au
Monday to Friday 8.30-5pm www.asthmawa.org.au

Useful Contacts:

- Your GP _________________________________
- Health Direct 1800 022 222
- Quitline 131 848
- Australian Society for Immunology and Allergy (ASCIA) www.allergy.org.au

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