

Module 6

Asthma



Online Module Overview

This document has been provided for participants completing a Revive2Survive First Aid Training course.

Please use this material to complete the Course Pack and answer the online multiple-choice theory assessment.

There are no assessments in these module packs, please use the link and attachment provided in your course confirmation email.

This information is to be used as a learning tool and while information contained in this online learning is frequently updated, medical advice should be sought from a practitioner in an emergency.

Module 1- CPR Resuscitation & the Airway

Module 2- Medical Emergencies

Module 3- Bleeds, Burns & Wounds

Module 4- Environmental Emergencies

Module 5- Anaphylaxis

Module 6- Asthma

Module 7- Assessment of a Casualty

Please note-

**HLTAID009 Provide CPR is recommended to be renewed every 12 months

**HLTAID011 Provide First Aid is recommended to be renewed every 3 years



Module 6 Overview

What is Asthma?

Who has Asthma?

Respiration Rates

Common Asthma Triggers

Asthma Symptoms

Anaphylaxis Symptoms

Asthma Medications

Comorbidities as Triggers

Use of Spacer

Thunderstorm Asthma

Asthma Action Plans

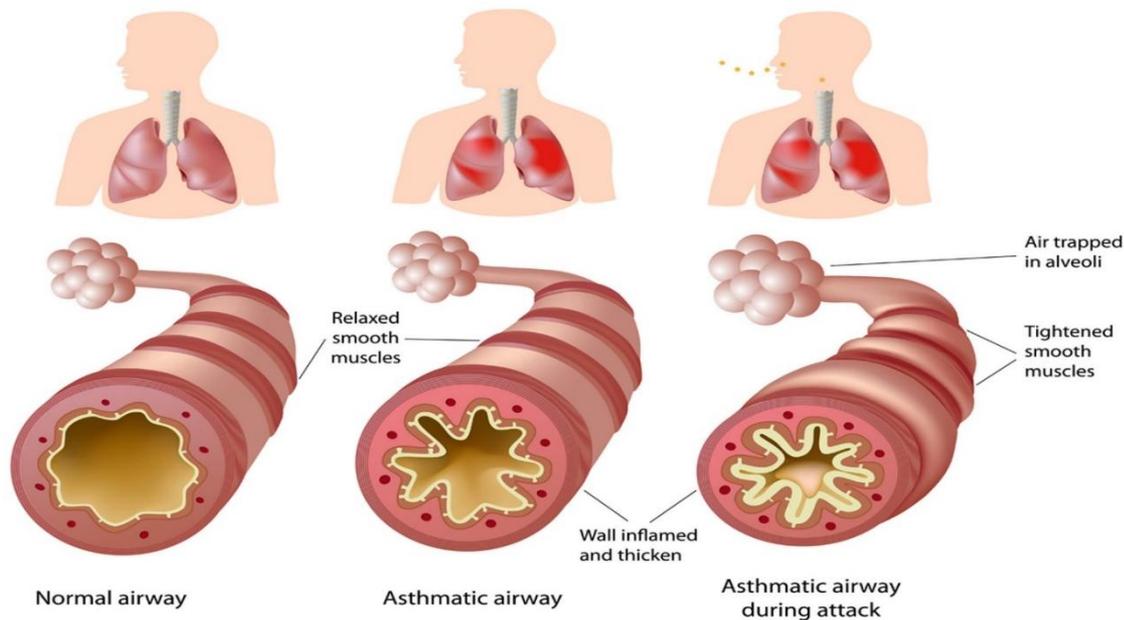
Treatment of Asthma

Medical Handover



What is Asthma?

- When sensitive airways are exposed to a trigger, the airway narrows, making it hard to breathe
- The inside lining of the airway becomes red and swollen and mucous may be produced.
- The muscle around the airways tightens.

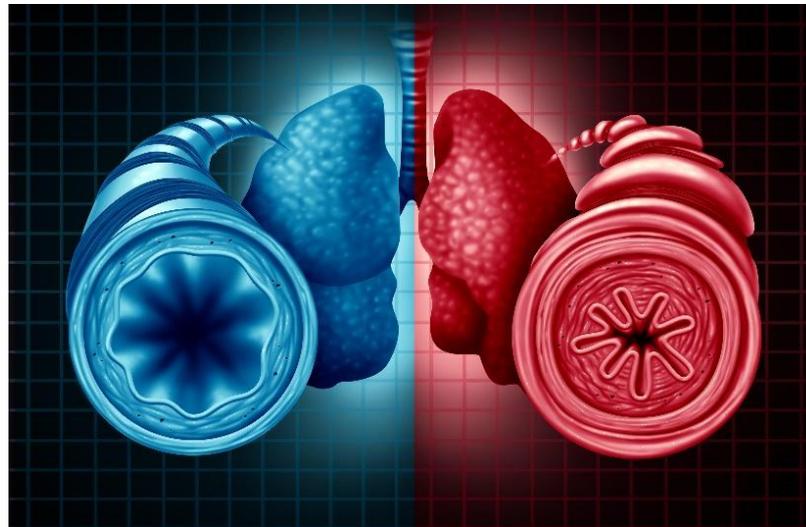


What is Asthma?

In Australia;

- 1 in 9 people have asthma
- 9 people in Australia die each week...

In 1989, **964** people died in Australia due to asthma. With improved asthma management, in 2024, 478 people died due to asthma (156 males 322 females).



Respiration Rates

Respiration rates outside of the parameters below would indicate that medical attention may need to be sought.

Normal respiration/breathing rates by age	
Newborn - 5 months	25-60 breaths per minute
6 months	20-55 breaths per minute
12 months	20-45 breaths per minute
2 years	20-40 breaths per minute
4 years	17-30 breaths per minute
6 - 8 years	16-30 breaths per minute
10 – 12 years	15-25 breaths per minute
14 – 17 years	14-25 breaths per minute
Adults	12-20 breaths per minute



Common Asthma Triggers

- Cold, flu & COVID
- Exercise
- Smoke (bushfire, cigarette, fireplace etc.)
- Strong odours
- Heightened emotions
- Food chemicals and additives
- Changes in temperature and weather
- Chemicals and strong smells including vaping
- Inhaled allergens; cold, dust & pollen
- Allergens
- Air pollution
- Smoking
- Thunderstorm Asthma

Symptoms...Can be **Mild**, **Moderate** or **Severe**



Comorbidities as Triggers

Medical conditions can impact a persons Asthma by reducing symptom control and triggering an exacerbation, some common ones include;

- Gastro-Oesophageal Reflux Disease
- Allergic Rhinitis (Hay Fever)
- Mental Health Conditions- Depression, Anxiety & Panic Disorder
- Obesity
- Obstructive Sleep Apnoea
- Chronic Obstructive Pulmonary Disease



Asthma Symptoms

Mild & Moderate Asthma Symptoms:

- Shortness of breath
- Coughing
- Chest tightness or pain
- Wheezing
- Speaking in shorter sentences

Severe Asthma Symptoms:

- Severe difficulty breathing
- Persistent coughing
- Tightened chest and neck muscles
- Severe wheezing (both on breathing in and out)
- Difficulty speaking more than single words
- Inability to catch breath
- Inability to fully exhale
- Feeling of anxiety or panic
- May have blue lips or fingertips
- Pale and sweaty skin



Anaphylaxis Symptoms

MILD

MODERATE

SEVERE



Swelling of lips, face eyes



Hives or welts



Tingling mouth



Abdominal pain, vomiting (these are signs of anaphylaxis for insect allergy)



Difficult or noisy breathing



Swelling of tongue



Swelling or tightness in throat



Wheeze or persistent cough



Difficulty talking or hoarse voice



Pale and floppy (young children)



Persistent dizziness or collapse



Abdominal pain, vomiting (these are signs of anaphylaxis for insect allergy)

Anaphylaxis symptoms can cause confusion with Asthma Symptoms, images above show signs of Anaphylaxis.

If the casualty has both asthma and severe allergy symptoms, treat them with the Adrenaline Device first, followed by the reliever asthma medication



Asthma Medications

Reliever Medications:

- Relievers have no script required.
- Short acting, relaxes the muscles around the airways.
- Works within minutes, lasts around 2-4hrs.
- Can include Symbicort Turbuhaler which is white & blue packaging, rather than Ventolin or other relievers that are grey/blue in colour



Preventer Medications:

- Reduces the inflammation and helps to dry up mucous.
- Should be taken every day and can take a few weeks to be effective.

Preventer medication will not provide relief in an asthma emergency.



3 groups of preventer medications

- Preventer
- Combination preventer
- Non-steroidal preventor



Asthma Medications



ASTHMA & COPD MEDICATIONS

SABA RELIEVERS



Ventolin Inhaler †^A
salbutamol 100mcg



Asmol Inhaler †^A
salbutamol 100mcg



Bricanyl Turbuhaler †^{A,C}
terbutaline 500mcg



Airomir Autohaler ‡[#]
salbutamol 100mcg



Zempraen Inhaler †^A
salbutamol 100mcg

RESOURCES

TREATMENT GUIDELINES

Australian Asthma Handbook:
asthmaandbook.org.au

COPD-X Plan:
cpdx.org.au

COPD Inhaler Device Chart Poster:
lungfoundation.com.au/resources/copd-inhaler-device-chart-poster/

INHALER TECHNIQUE

How-to videos, patient and practitioner information
nationalasthma.org.au

pMDIs should be used with a spacer (and face mask if needed)

HOW-TO VIDEOS



SCAN ME

ICS PREVENTERS



Flixotide Inhaler †
fluticasone propionate
50mcg* - 125mcg* - 250mcg
*Flixotide Junior[®]



Flixotide Accuhaler †
fluticasone propionate
100mcg* - 250mcg* - 500mcg
*Flixotide Junior[®]



Fluticasone Cipla Inhaler †
fluticasone propionate
125mcg - 250mcg



Pulmicort Turbuhaler †
budesonide
100mcg* - 250mcg* - 400mcg



QVAR Inhaler †
beclomethasone
50mcg - 100mcg



QVAR Autohaler †
beclomethasone
50mcg - 100mcg



Alvesco Inhaler †
ciclesonide
80mcg - 160mcg



Arnuity Ellipta †
fluticasone furoate
100mcg - 250mcg



Azotide Inhaler †
fluticasone propionate
50mcg* - 125mcg* - 250mcg
*Azotide Junior[®]



Azotide Accuhaler †
fluticasone propionate
100mcg* - 250mcg
*Azotide Junior[®]

LABA MEDICATIONS



Oxis Turbuhaler ‡
formoterol 4mcg - 12mcg



Serevent Accuhaler ‡
salmeterol 50mcg



Onbrez Breezhaler ‡
indacaterol 100mcg - 300mcg

LAMA MEDICATIONS



Spiriva Respimat ‡ †[#]
tiotropium 2.5mcg



Spiriva Handihaler ‡
tiotropium 18mcg



Bravlys Zonda ‡
tiotropium 13mcg



Bretaris Genual ‡
acridinium 322mcg



Seebri Breezhaler ‡
glycopyrronium 50mcg



Incruse Ellipta ‡
umeclidinium 42.5mcg

LAMA/LABA COMBINATIONS



Spiolto Respimat ‡
acridinium/tiotropium
2.3/2.5mcg



Brimica Genual ‡
acridinium/formoterol
346/12mcg



Ultribre Breezhaler ‡
indacaterol/glycopyrronium
110/50mcg



Anoro Ellipta ‡
umeclidinium/vilanterol
42.5/25mcg

ICS/LABA COMBINATIONS



Sereotide Inhaler ‡
budesonide/formoterol
50/25 - 125/25 - 250/25 †
Additional brand: Paylido,
Fluticasone + Salmeterol Cipla,
Salpirol[®], Seratide, Evoclar



DuoResp Spirinmax ‡
budesonide/formoterol
200/6 - 400/12 †
Additional brand: Biflosp, Spirinmax



Flutiform Inhaler ‡
fluticasone propionate/formoterol
50/5 - 125/5 - 250/10



Sereotide Accuhaler ‡
fluticasone propionate/salmeterol
100/50 - 250/50 - 500/50 †
Additional brand: Paylido,
Fluticasone + Salmeterol Cipla



Fostair Inhaler ‡
beclomethasone/formoterol
100/6 - 200/6



Symbicort Rapihalar ‡
budesonide/formoterol
55/3 - 100/3 - 200/6 †
Additional brand: Bifair Rapihalar



Bree Ellipta ‡
fluticasone furoate/vilanterol
100/25 † - 200/25



Symbicort Turbuhaler ‡
budesonide/formoterol
100/5 - 200/5 - 400/12 †
Additional brand: Bifair Turbuhaler



Atecurta Breezhaler ‡
fluticasone furoate/indacaterol
62.5/125 - 125/125 - 250/125
all units in mcg

ICS/LAMA/LABA COMBINATIONS



Trelegy Ellipta ‡
fluticasone furoate/
umeclidinium/vilanterol
100/62.5/25 † - 200/62.5/25 †



Enerzair Breezhaler ‡
mometasone/glycopyrronium/
indacaterol
68/64/114 - 136/64/114



Trimbow Inhaler ‡
beclomethasone/glycopyrronium/
formoterol
100/10/6 † - 200/10/6 †



Brettri Aerosphere ‡
budesonide/glycopyrronium/
formoterol
160/7.2/5
all units in mcg

This chart was developed independently by the National Asthma Council Australia with support from AstraZeneca Australia, Chiesi Australia, and GlaxoSmithKline (GSK Australia).
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‡ PBS PRESCRIBERS † Asthma unrestricted benefit ‡ Asthma restricted benefit † Asthma authority required † COPD unrestricted benefit † COPD restricted benefit † COPD authority required
Check TGA and PBS for current age and condition criteria

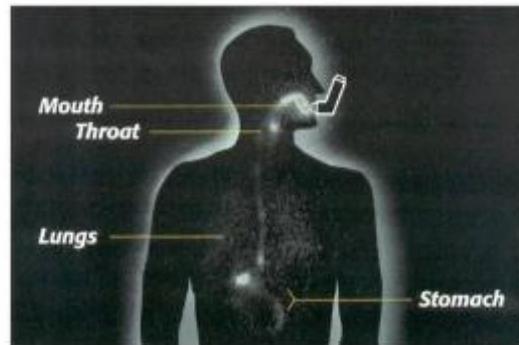
SABA: Ventolin, Asmol, Bricanyl, Airomir, Zempraen. ICS: Flixotide, Pulmicort, QVAR, Alvesco, Arnuity, Azotide. LABA: Oxis, Serevent, Onbrez. LAMA: Spiriva, Bravlys, Seebri, Ultribre. LAMA/LABA: Spiolto, Brimica. ICS/LABA: Sereotide, Flutiform, Sereotide Accuhaler, Fostair, Symbicort, Atecurta. ICS/LAMA/LABA: Trelegy, Enerzair, Trimbow, Brettri. Additional brands: Paylido, Fluticasone + Salmeterol Cipla, Salpirol, Seratide, Evoclar, Biflosp, Spirinmax, Bifair, Bifair Rapihalar, Bifair Turbuhaler.



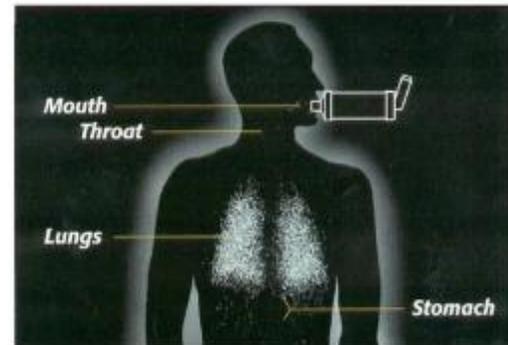
Why Use a Spacer?

The spacer allows time for the patient to inhale sufficiently down the trachea, not into the oesophagus resulting in effective medication administration.

- A spacer can only be used for puffer style inhalers
- For very young children you will need to fit a spacer with a mask for effective use



Inhaler alone



Inhaler used with spacer device



Thunderstorm Asthma

What is Thunderstorm Asthma?

- Thunderstorm Asthma is triggered by a mixture of grass pollen in the air and thunderstorm conditions.
- Pollen grains are drawn up in windy conditions before a thunderstorm, these absorb water, swell and burst releasing small pollen particles.
- The wind conditions associated with the thunderstorm can push these tiny particles to ground level where they can be breathed into the lungs.
- Thunderstorm Asthma usually affects people in the windy period before the rain starts.
- Most commonly happens in spring and early summer.
- Even people who have never had asthma before can get thunderstorm asthma.
- In November 2016, 10 people died due to a Thunderstorm Asthma event in Melbourne.

Who is affected by Thunderstorm Asthma?

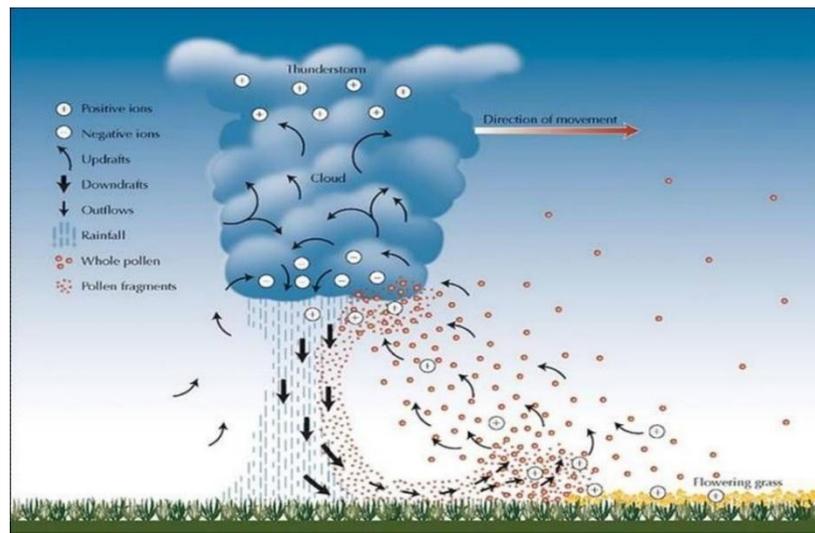
- The risk of Thunderstorm Asthma is highest in adults who are sensitive to grass pollen (particularly rye grass pollen) and have seasonal hay fever
- Thunderstorm Asthma can happen in anyone of any age even if no history of Asthma



Thunderstorm Asthma

Management/Treatment of Thunderstorm Asthma:

- Be aware of forecast thunderstorms during pollen season, particularly on days with a **HIGH** or **EXTREME** pollen count.
- Where possible, stay indoors with doors and windows closed until the storm front has passed.
- Follow Asthma Action Plan if you have one available.
- Carry Asthma medication with you and administer if needed.
- If at any point you are concerned that the casualty is rapidly worsening, please call 000 and say they are having an asthma attack. If a reliever is available, please commence 4 x 4 x 4 method.



Asthma Prevention

- Reduce exposure to triggers if possible.
- Train staff in Asthma Management.
- Have open communication regarding students with Asthma.
- Manage risks where possible.
- Review strategies every 12 months or with any new exacerbations.
- Do not delay treatment.



Asthma Action Plans

- People with Asthma should carry an Action Plan
- Action Plans should be signed off by a doctor
- Action Plans should be updated after an attack, or at least:
 - Adults- 12 months
 - Children- 6 months

Action Plans have 4 key sections:

1. How to look after the persons asthma daily
2. What to do if the persons asthma starts to flare-up
3. What to do if the persons asthma flare-up is severe
4. What to do in an asthma emergency



Asthma Action Plans

ASTHMA ACTION PLAN

Take me when you visit your doctor

Name: _____

Plan date: _____ Review date: _____

Doctor details: _____

Photo (optional)

EMERGENCY CONTACT

Name: _____

Phone: _____

Relationship: _____

WELL CONTROLLED is all of these...

- needing reliever medicine no more than 2 days/week
- no asthma at night
- no asthma when I wake up
- can do all my activities

Peak flow reading (if used) above _____

TAKE preventer

morning night puffs/inhalations

• Use my preventer, even when well controlled. • Use my spacer with my puff

TAKE reliever

_____ puffs/inhalations as needed _____ puffs/inhalations 15 minutes before exercise

• Always carry my reliever medicine

FLARE-UP Asthma symptoms getting worse such as **any** of these...

- needing reliever medicine more than usual OR more than 2 days/week
- woke up overnight with asthma
- had asthma when I woke up
- can't do all my activities

Peak flow reading (if used) between _____ and _____ and my triggers and symptoms

TAKE preventer

morning night puffs/inhalations for _____ days then back to well controlled dose

TAKE reliever

_____ puffs/inhalations as needed

START other medicine

MAKE appointment to see my doctor same day or as soon as possible

SEVERE Asthma symptoms getting worse such as **any** of these...

- reliever medicine not lasting 3 hours
- woke up frequently overnight with asthma
- had asthma when I woke up
- difficulty breathing

Peak flow reading (if used) between _____ and _____ and my triggers and symptoms

TAKE preventer

morning night puffs/inhalations for _____ days then back to well controlled dose

TAKE reliever

_____ puffs/inhalations as needed

START other medicine

MAKE appointment to see my doctor TODAY if unable to see my doctor, visit a hospital!

OTHER INSTRUCTIONS

_____ (Other medicines, treatments, dose, duration, etc)

EMERGENCY is any of these...

- reliever medicine not working at all
- can't speak a full sentence
- extreme difficulty breathing
- feel asthma is out of control
- lips turning blue

Peak flow reading (if used) below _____

1 CALL AMBULANCE NOW
Dial Triple Zero (000)

2 START ASTHMA FIRST AID
Turn page for Asthma First Aid

If you are using a dual purpose reliever, your doctor will discuss the correct plan for you. v18 Updated 16 May 2023

ASTHMA ACTION PLAN

Take this ASTHMA ACTION PLAN with you when you visit your doctor

ACTION PLAN FOR Name: _____ DOCTOR'S CONTACT DETAILS Name: _____ EMERGENCY CONTACT DETAILS Name: _____

Date: _____ Phone: _____ Phone: _____

Next asthma check-up due: _____ Relationship: _____

WHEN WELL Asthma under control (almost no symptoms) ALWAYS CARRY YOUR RELIEVER WITH YOU

Your preventer is: _____ (NAME & STRENGTH) _____ times every day

Take _____ puffs/tablets _____ times every day

Use a spacer with your inhaler

Your reliever is: _____ (NAME) _____

Take _____ puffs _____

When: You have symptoms like wheezing, coughing or shortness of breath

Use a spacer with your inhaler

OTHER INSTRUCTIONS (e.g. other medicines, trigger avoidance, what to do before exercise)

Peak flow* (if used) above: _____

WHEN NOT WELL Asthma getting worse (needing more reliever than usual, having more symptoms than usual, waking up with asthma, asthma is interfering with usual activities)

Keep taking preventer: _____ (NAME & STRENGTH) _____ times every day

Take _____ puffs/tablets _____ times every day

Use a spacer with your inhaler

Your reliever is: _____ (NAME) _____

Take _____ puffs _____

Use a spacer with your inhaler

OTHER INSTRUCTIONS (e.g. other medicines, when to stop taking extra medicines)

Contact your doctor if _____

Peak flow* (if used) between _____ and _____

IF SYMPTOMS WORSEN Severe asthma flare-up/attack (needing reliever again within 3 hours, increasing difficulty breathing, waking often at night with asthma symptoms)

Keep taking preventer: _____ (NAME & STRENGTH) _____ times every day

Take _____ puffs/tablets _____ times every day

Use a spacer with your inhaler

Your reliever is: _____ (NAME) _____

Take _____ puffs _____

Use a spacer with your inhaler

OTHER INSTRUCTIONS (e.g. other medicines, when to stop taking extra medicines)

Pre-dilator(s)/prednisone: _____ each morning for _____ days

Contact your doctor today if _____

Peak flow* (if used) below: _____

DANGER SIGNS Asthma emergency (severe breathing problems, symptoms get worse very quickly, reliever has little or no effect)

DIAL 000 FOR AMBULANCE

Peak flow (if used) below: _____

Call an ambulance immediately

Say that this is an asthma emergency

Keep taking reliever as often as needed

Use your adrenaline autoinjector (EpiPen or Anapen)

National Asthma Council AUSTRALIA

nationalasthma.org.au

*Peak flow not recommended for children under 12 years.

For Further information please see Asthma Australia (www.asthma.org.au) or National Asthma Council Australia (www.nationalasthma.org.au)



Asthma Action Plans

Why is a written action plan needed?

- An Asthma Action Plan is one of the most useful asthma tools we have
- Asthma information is set out in a way that is easy to follow to help manage asthma in an individual.
- Having an Asthma Action Plan and having regular reviews with an individual's doctor leads to; fewer days off from school or work, reduced emergency visits to hospital and less use of reliever medication.
- All carers and family members should understand and be familiar with an individual's Asthma Action Plan so they can help during an asthma flare-up or attack.

Where should an action plan be stored?

- Asthma action plans need to be stored somewhere easy to find with the medications you may require.
- It is recommended for asthmatics to take a photo of it to keep on their phone.
- Use the [Kiss myAsthma App](#) to upload plans.
- A copy of a child's action plan must be given to a childcare centre or school.

What is a Workplace Asthma Emergency Management Plan (WAEMP)?

- A WAEMP is a plan of how the workplace will deal with all aspects of Asthma
- WAEMP should be updated annually



How to Treat Asthma

- Bring the casualty inside
- Sit the casualty upright
- Be calm and reassuring, do not leave the casualty
- Ensure to **shake** the inhaler well and give 1 spray into the atmosphere to clear the inhaler
- Shake inhaler again before each puff

If no spacer:

- Give 4 puffs with 4 breathes (1x1, 1x1, 1x1, 1x1)
- Wait 4 minutes
- If no improvement, give another 4 puffs and call 000 (or earlier if concerned).
- Continue Administering 4 puffs, 4 breaths, every 4 minutes until help arrives



If spacer is available:

- Give 1 puff at a time with 4 breaths after each puff (1x4, 1x4, 1x4, 1 x4)
- Wait 4 minutes
- If no improvement, give another 4 puffs and call 000 (or earlier if concerned).
- Continue Administering 4 puffs, with 4 breaths per puff, every 4 minutes until help arrives.

4 x 4 x 4



Medical Handover

After the arrival of Paramedics, it is vital to provide a detailed handover.

Information they require:

- Introduce the casualty
- The history (if known) including time the symptoms started
- Trigger (if known)
- Time/s asthma reliever was administered
- What the casualty is reporting/reported about their condition
- Signs and symptoms that were observed
- Give a copy of the Asthma Management Plan to the paramedic (if available) which includes parent contact details
- All children should be accompanied by a carer/teacher



Review of Incident

- Debrief with staff, children & families involved. Talk to the children about their emotions and response to the event, refer to additional support if needed.
- Complete workplace incident report.
- Notify relevant authorities e.g. Government Departments, relevant governing bodies.
- Replace any equipment as required
- Update Action Plan.
- Review response/procedure.

Review, evaluate and assess the response

- Was the response timely?
- Where are the reliever puffers kept?
- How would I get the generic reliever puffer in a hurry?
- Does the casualty carry their reliever medication with them?
- Do their friends know how to recognise signs, symptoms?



Review of Incident

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Stress Management

After an incident it is important to observe for signs of stress:

- Observe changes in behaviour
- If upset, ask if they want to talk about it
- Offer reassurance
- Listen attentively, be calm and supportive
- For children if they don't want to talk, they may want to draw pictures to describe how they are feeling
- Talk to the parents/carers of your observations if you are concerned



Risk Minimisation

Employers have a responsibility to provide a safe caring environment.

Key steps are:

- Find out which individuals are known to have Asthma – obtain current action plan.
- Remove potential triggers or identify those that cannot be removed.
- Note differing environments and how this impacts risk.
- Develop communication to raise awareness of Asthma.
- Ensure staff are trained in treating Asthma emergencies.
- Ensure Asthma Action Plans and reliever medication + spacer are stored together in an unlocked location.
- Develop an Emergency Response Plan for Asthma & educate relevant staff.
- Review management plans annually or after an Asthma event.



Communication Plan

It is important that everyone in a workplace/school/ childcare facility is aware of the seriousness of Asthma, how to identify signs and symptoms and the correct emergency first aid response.

Communication plan is informing stakeholders of the workplaces policies and procedures and their roles and responsibilities in an emergency.

Communication can be distributed via face to face, flyers, noticeboards, online portals, emails etc. Communication plans should be reviewed at a minimum annually.

This information should be circulated amongst:

- Workplace first aiders
- Students
- Teachers/early childhood staff
- Parents/careers/volunteers
- Casual or specialist staff
- Caterers, cooks or canteen staff
- Providers of camp/conferences
- Incursions visitors
- Excursion facilitators



Communication Plan

Key information needing to be communicated:

- Those at risk
- Awareness of the seriousness of the condition
- Triggers of an asthmatic reactions
- Signs and symptoms
- Asthma Action Plan location
- Reliever medication & spacer location

Communication plans should be reviewed annually to ensure effectiveness.

Training in 22556VIC Course in the Management of Asthma Risks and Emergencies in the Workplace is recommended to be renewed every three years



Module 6 Complete

Please continue to Module 7



For first aid supplies visit

www.firstaidgearaustralia.com.au

