



GUIDELINE 9.2.5

FIRST AID FOR ASTHMA

INTRODUCTION¹

Asthma is a disorder of the smaller airways of the lungs. People with asthma have sensitive airways which can narrow when exposed to certain 'triggers', leading to difficulty in breathing.

Three main factors cause the airways to narrow:

- The muscle around the airway tightens (bronchoconstriction).
- The inside lining of the airways becomes swollen (inflammation).
- Extra mucus (sticky fluid) may be produced.

In asthma, symptoms are made worse by 'triggers'. Every person's asthma is different and not all people will have the same triggers. Triggers can include:

- Colds and flu.
- Cigarette smoke.
- Exercise.
- Inhaled allergens (e.g. pollens, moulds, animal dander and dust mites).
- Environmental factors (e.g. dust, pollution, wood smoke, bush fires).
- Changes in temperature and weather.
- Certain medications (e.g. aspirin).
- Chemicals and strong smells (e.g. perfumes, cleaning products).
- Emotional factors (e.g. laughter, stress).
- Some foods and food preservatives, flavourings and colourings (uncommon).

RECOGNITION¹

Asthma can be recognised by the following symptoms and signs:

- A dry, irritating, persistent cough, particularly at night, early morning, with exercise or activity.
- Chest tightness.
- Shortness of breath.
- Wheeze (high pitched whistling sound during breathing).

Signs of a severe asthma attack include some or all of the following:

- Gasping for breath (may have little or no wheeze due to little movement of air).
- Severe chest tightness.
- Inability to speak more than one or two words per breath.
- Feeling distressed and anxious.
- Little or no improvement after using “reliever” medication.
- ‘Sucking in’ of the throat and rib muscles, use of shoulder muscles or bracing with arms to help breathing.
- Blue discolouration around the lips (can be hard to see if skin colour also changes).
- Pale and sweaty skin.
- Symptoms rapidly getting worse or using reliever more than every two hours.²

As well as the above symptoms, young children appear restless, unable to settle or become drowsy. A child may also ‘suck’ in muscles around the ribs and may have problems eating or drinking due to shortness of breath. A child also may have severe coughing and vomiting.

An asthma attack can take anything from a few minutes to a few days to develop.

MANAGING AN ASTHMA ATTACK³

If the victim has a personal written asthma action plan then that plan should be followed.

If there is no action plan in place then use the following Asthma First Aid plan..

Asthma First Aid Plan

If a victim has any signs of a severe asthma attack, call an ambulance straight away and follow the Asthma First Aid Plan while waiting for the ambulance to arrive.

Step 1: Sit the person comfortably upright. Be calm and reassuring. Do not leave the person alone.

Step 2: Without delay give four separate puffs of a “reliever”. The medication is best given one puff at a time via a spacer device. If a spacer is not available, simply use the puffer.

Ask the person to take four breaths from the spacer after each puff of medication.

Use the victim’s own inhaler if possible. If not, use the first aid kit inhaler if available or borrow one from someone else.

The first aid rescuer should provide assistance with administration of a reliever if required.⁴ [LOE Expert Consensus Opinion]

Step 3: Wait four minutes. If there is little or no improvement give another four puffs.

Step 4: If there is still no improvement, call an ambulance immediately. Keep giving four puffs every four minutes until the ambulance arrives.

No harm is likely to result from giving a “reliever” puffer to someone without asthma.² [LOE: Expert Consensus Opinion].

If oxygen is available, it should be administered at a flow rate of at least at 8 litres per minute through a face mask, by a person trained in its use.⁵ [LOE: Expert Consensus Opinion]

If breathing stops, give resuscitation following Basic Life Support Flowchart (Guideline 8)

If a severe allergic reaction is suspected, refer to ARC Guideline 9.2.7 Anaphylaxis – First Aid Management.

Diagrams for the use of Devices⁴



WITH SPACER

Shake the inhaler and place the mouthpiece into the spacer. Place the spacer mouthpiece into the victim's mouth, administer one puff into the spacer and ask the victim to breathe in and out normally for four breaths. Repeat this promptly until four puffs have been given.



WITHOUT SPACER

When a spacer is unavailable, shake the inhaler. Place the mouthpiece into the victim's mouth and administer one puff as the victim inhales slowly and steadily. Ask the victim to hold their breath for four seconds and then take four normal breaths. Repeat this promptly until four puffs have been given.

The most common reliever medication is Salbutamol⁶. Alternative relievers that may be considered for adults are terbutaline or eformoterol plus budesonide

CLASS OF RECOMMENDATION

Class A - Recommended

REFERENCES

1. Asthma Foundation of Victoria. Asthma, The Basic Facts. June 2006.
http://www.asthma.org.au/Portals/0/AsthmaTheBasicFacts_B_0706.pdf. Accessed 24/02/08.
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http://www.nationalasthma.org.au/html/management/action_plans/print/aap_Sept2007.pdf
Accessed 03/03/08.
4. National Asthma Council. Emergency Asthma Management. First Aid for Asthma.
<http://www.nationalasthma.org.au/html/emergency/index.asp>. Accessed 24/02/08
5. National Asthma Council Australia. Asthma Management Handbook 6th Edition 2006.
http://www.nationalasthma.org.au/cms/index.php?option=com_content&task=view&id=79&Itemid=92. Accessed 24/02/08
6. First Aid Science Advisory Board. Part 10: First Aid. Circulation, 2005.**112**:115-125.
6. [http://www.betterhealth.vic.gov.au/bhcv2/bhcmed.nsf/pages/pucsalbu/\\$File/pucsalbu.pdf](http://www.betterhealth.vic.gov.au/bhcv2/bhcmed.nsf/pages/pucsalbu/$File/pucsalbu.pdf)

CROSS REFERENCES

ARC Guideline 5 Breathing

ARC Guideline 8 Cardiopulmonary Resuscitation

ARC Guideline 9.2.7 Anaphylaxis – First Aid Management

ARC Guideline 10.4 The Use of Oxygen in Emergencies