



9th edition

# ABC of First Aid

# Asthma &

# Anaphylaxis

BEST  
SELLER



**International  
Emergency Numbers**  
Latest Guidelines



Dr Audrey Sisman

# ABC of First Aid Asthma & Anaphylaxis

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This book has been written based on current guidelines and requirements as defined by:

- Australian Resuscitation Council
- New Zealand Resuscitation Council
- European Resuscitation Council
- Epilepsy Association of Tasmania
- Roads and Traffic Authority
- National Heart Foundation of Australia
- Australasian Society of Clinical Immunology & Allergy (ASCIA)
- Asthma Foundation of Queensland
- WorkCover QLD

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The information in this book contains, at the time of printing, the most current resuscitation guidelines. This book is designed to be an information resource and is not a substitute for attending a first aid course conducted by an approved provider. The author of this book accepts no responsibility for any injury or damage that may occur as a result of using this book in first aid management.

## How to use this book

ABC of First Aid, Asthma & Anaphylaxis is divided into 7 main colour coded sections:

•**Essential First Aid** •**Trauma** •**Medical Emergencies** •**Anaphylaxis** •**Asthma**  
•**Education & Child Care** •**General First Aid**

Each subsection shows you step-by-step how to recognise and deal with an emergency situation. Emergencies are recognised by **SIGNS & SYMPTOMS** which are contained in a **red box**. Displayed in a **green box** is the **FIRST AID** management of an emergency situation.

 means dial your country's emergency number.

A fold out **World Map** of international emergency numbers at the back of the book identifies emergency numbers across the world. The **Emergency Numbers** page is for writing local, national and international emergency numbers.

Also at the back, there is a **First Aid Incident Report Form** and **Workplace Casualty Report Form** which can be torn out and used in a first aid incident.

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## World Map

Inside Back Cover

## Emergency Numbers

# Unconsciousness

is a state of unrousable, unresponsiveness, where the person is unaware of their surroundings and no purposeful response can be obtained.

**NO RESPONSE**

**NO Breathing or Abnormal Breathing**

Follow **Basic Life Support Chart**

**Breathing Normally**

Recovery Position, Call ☎, monitor

Causes of an **unresponsive (unconscious), breathing state:**

- A - Alcohol
- E - Epilepsy
- I - Insulin (Diabetes)
- O - Overdose
- U - Uraemia (renal failure)
- T - Trauma (head/spinal)
- I - Infections (meningitis)
- P - Pretending
- S - Stroke

Combinations of different causes may be present in an unconscious casualty eg head injury and diabetes.

NB. The sense of **hearing** is usually the last sense to go, so be careful what you say near an unconscious casualty.

All unconscious casualties must be handled gently and every effort made to avoid any twisting or forward movement of the head and spine.

(A noticeably pregnant, unconscious, breathing woman is best placed on her left side).

The recovery position:

- Maintains a clear airway - allows the tongue to fall forward.
- Facilitates drainage and lessens the risk of inhaling foreign material (eg saliva, blood, food, vomit).
- Permits good observation and access to the airway.
- Avoids pressure on the chest which facilitates breathing.
- Provides a stable position and minimises injury to casualty.



Airway management takes priority over spinal injury



## Step 1

- Raise the casualty's furthest arm above the head.
- Place the casualty's nearest arm across the body.
- Bend-up the casualty's nearest leg.
- With one hand on the shoulder and the other on the knee, roll casualty away from you.



## Step 2

- Stabilise the casualty by flexing the bent knee to 90° when resting on the ground.
- Tuck the casualty's hand under their armpit.
- Ensure the casualty's head is resting on their outstretched arm.

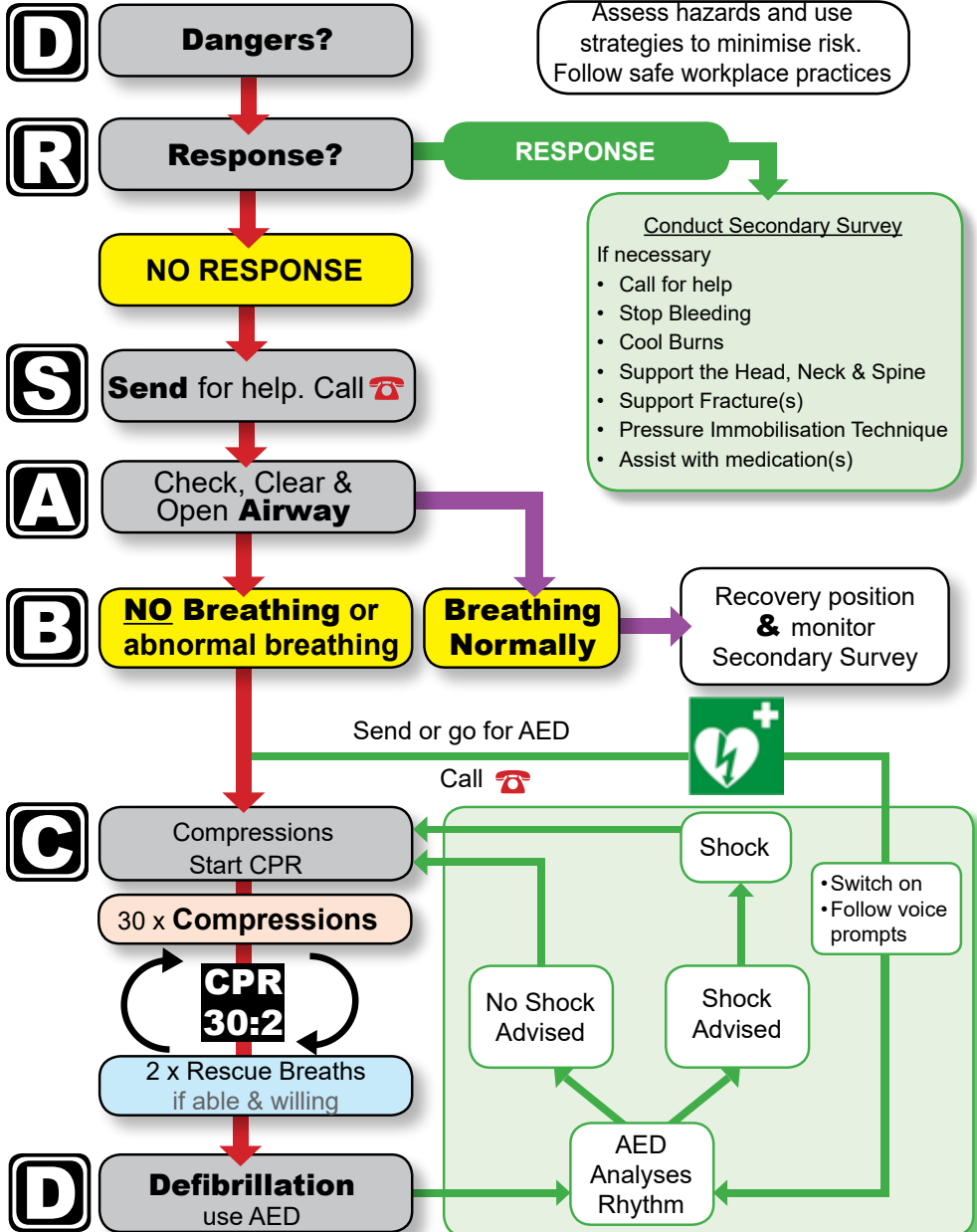


## Step 3

- Carefully tilt the head slightly backwards and downwards. This facilitates drainage of saliva and/or stomach contents and reduces the risk of inhalation which may cause pneumonia.

# Basic Life Support & AED

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In an **EMERGENCY CALL**  or 

## Bleeding (Haemorrhage) can be external and obvious or internal and unseen.

Bleeding is classified according to the type of blood vessel damaged:

**Arterial** - bright red; spurting. **Venous** - dark red; flowing.

**Capillary** - bright red; oozing.

Types of wounds associated with bleeding are: • Abrasion • Incision  
• Laceration • Puncture • Embedded object • Tear • Amputation.

### External Bleeding:

The aim is to control blood loss. Sustained pressure on or near the wound usually controls bleeding.



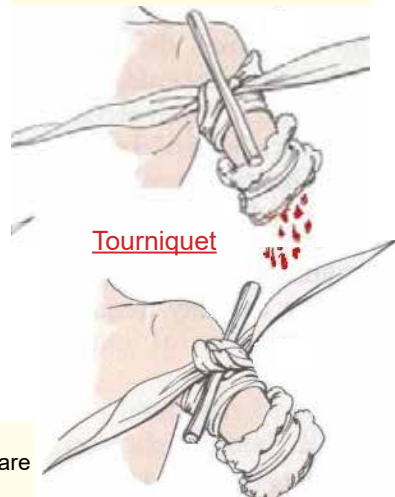
Direct Pressure

#### FIRST AID

- Check for Dangers to self, bystanders & casualty.
- Use standard precautions (eg gloves, glasses) if readily available.
- Check for embedded objects (pg 13).
- Apply sufficient direct or indirect pressure on or near the wound as appropriate to stop bleeding. Maintain pressure **over the wound** using hands or pad (sterile dressing, tea towel or handkerchief).
- Bandage firmly to hold pressure pad in place.
- Lie the person down if bleeding from the lower limb or severe bleeding.
- **If bleeding is not controlled** - apply another pad and a tighter bandage. It may be necessary to remove the pads to locate a bleeding point. Aim to press over a small area to achieve greater pressure over the bleeding point. *(For this reason an unsuccessful pressure dressing may be removed to allow a more direct pressure pad and dressing on the bleeding location).*
- **If major bleeding continues** - use a haemostatic dressing (pg 13) if available and trained in its use or use a tourniquet (pg 12) above the bleeding point if trained in its use.
- Elevation is not recommended: there is no evidence it reduces bleeding and it could increase pain or injury.
- To control bleeding: immobilise the part, restrict movement, advise casualty to remain at total rest.
- Call ☎
- Reassure casualty.
- Monitor vital signs at frequent intervals. .
- Give oxygen if available and trained to do so.
- DO NOT give casualty food, alcohol, medication.

**TOURNIQUET:** Used to control life-threatening bleeding that can't be controlled with direct pressure (eg traumatic amputation of a limb).

- Use as a **LAST RESORT**.
- Use a wide bandage (>5 cm).
- Apply **5 cm** above bleeding point.
- Tighten until bleeding stops.
- **Note the time of application;** write time of application on casualty, advise paramedics.
- DO NOT cover tourniquet with any bandage or clothing.
- DO NOT apply tourniquet over a joint or wound.
- DO NOT remove tourniquet until casualty receives specialist care.
- Call ☎



Tourniquet


**Haemostatic Dressings:** work by assisting the natural clotting process. There are different types of haemostatic dressings; some are cloth dressings which are impregnated with a clotting agent, others are in granular form to be sprinkled on a wound.

**Internal Bleeding:** May be difficult to recognise but suspect internal bleeding where there are signs and symptoms of shock (pg 14).

Internal bleeding may be concealed or obvious →

Suspect internal bleeding in the following:

- **Blunt force** - eg road traffic accident or fall from a height.
- **Penetrating injury.**
- **History of stomach ulcers.**
- **Early pregnancy** - ectopic pregnancy.
- **Pain, tenderness or swelling** over affected area.

Internal bleeding requires urgent treatment call 

**Concealed internal bleeding:**


Spleen, liver, pancreas, brain (no bleeding visible).

**Obvious internal bleeding:**

Lungs – Cough up frothy pink sputum.  
Stomach – Vomit brown coffee grounds or red blood.  
Kidneys – Blood stained urine.  
Bowels – Rectal bleeding: bright red or black and “tarry”.  
Uterus/ Bladder - Bleeding from vagina or penis.

**Embedded Object:** eg knife, glass, stick

**FIRST AID**

- DO NOT remove the object - it could be plugging the wound.
- Build up padding around or above and below the object.
- Apply sustained pressure over the pad (indirect pressure).
- Bandage firmly over the pad.
- DO NOT apply pressure over the object.
- DO NOT shorten object unless its size is unmanageable.
- Immobilise object and restrict movement of the limb.
- Advise casualty to remain at rest.
- Call 



## Nose bleed

**FIRST AID**

- Pinch soft part of nose just below the bone.
- Have casualty seated and leaning forward.
- Ask casualty to breathe through their mouth.
- Maintain pressure and posture for at least 10 mins (up to 20mins may be required after exercise, hot weather or if casualty has high blood pressure or takes aspirin or warfarin).
- If bleeding continues >20 mins - seek medical assistance.
- Apply cold compress to forehead and neck.
- Advise casualty not to blow or pick their nose for a few hours.



**Amputation** Manage amputated limb as for major external bleeding (pg 12).

Amputation of a limb may require a **tourniquet** (pg 12) to control life-threatening bleeding.

- DO NOT wash or soak amputated part in water or any other liquid.
- Wrap the part in gauze or a clean handkerchief and place in watertight plastic bag.
- Place sealed bag or container in cold water which has ice added to it
- (The part should not be in direct contact with ice).
- Label the bag and send to hospital with the casualty.

## About Asthma

Asthma is a long-term lung condition. People with asthma have sensitive airways in their lungs which react to triggers, causing a 'flare-up'. In a flare-up, the muscles around the airway squeeze tight, the airways swell and become narrow and there is more mucus. These things make it harder to breathe. (See also pg 23 - *First aid management of asthma*).

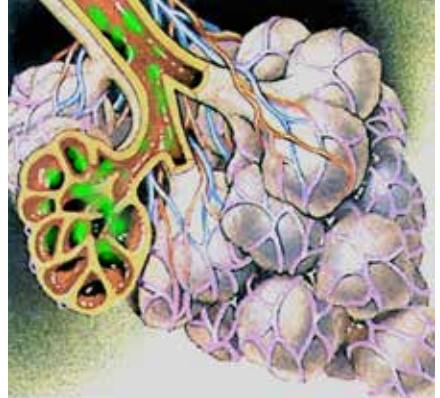
1 in 9 Australians have asthma – around 2.5 million. The rate of asthma among Indigenous Australians is almost twice as high as that of non-Indigenous Australians.

There are about 40,000 hospitalisations of asthma per year and 420 deaths per year due to asthma.

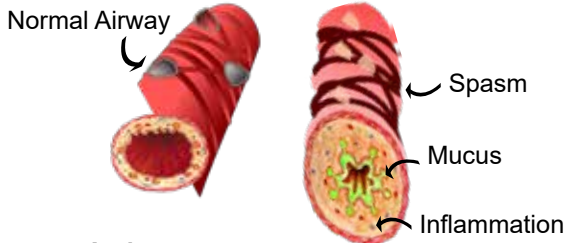
## Why Asthma is Dangerous

Many people perceive asthma as dangerous because the casualty cannot get sufficient oxygen. The shortage of oxygen is serious. However, what is more dangerous is the toxic effect of acidosis which is caused by carbon dioxide building up in the blood stream. Acidosis can only be managed in hospital with advanced medical management. At this stage more oxygen will not "undo" the effects of the high carbon dioxide levels.

When a person's asthma can't be controlled with reliever medication it is critical that they receive urgent hospital care before carbon dioxide levels build to a critical or even irreversible level.

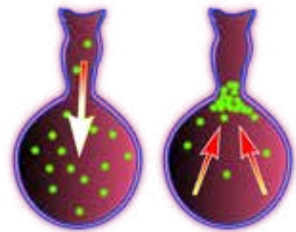


During an asthma attack, when a person exhales, the extra mucus forms a plug, trapping carbon dioxide in the lungs. This is the main reason asthmatics can't go SCUBA diving.



**Asthma** causes:

1. Inflammation of the bronchioles
2. Extra mucus in the lungs and
3. Spasm (contraction) of the muscles around the bronchioles



Inhalation

Exhalation

## Peak Flow Monitoring

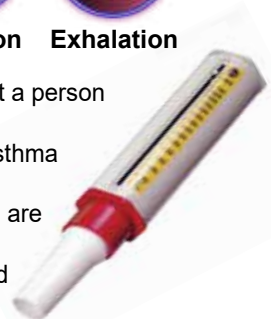
A peak flow meter is a portable, handheld device used to measure how fast a person can breathe out (exhale).

Measuring Peak Expiratory Flow (PEF) is an important part of managing asthma symptoms and preventing a flare-up in known asthmatics.

Keeping track of PEF readings, is one way of knowing if asthma symptoms are in control or worsening.

Peak flow readings must be measured regularly (usually every morning and night) on the same meter to be useful. There isn't a single 'normal' score; rather it's about working out what's normal for that person and then tracking if there are any changes.

Peak flow monitoring is not recommended for children under 12 yrs.





# Asthma Medications

**Asthma Medications** fall into two broad categories - **Relievers & Preventers**.

Inhaler medication comes in either **aerosol** or **powdered** form:

Puffers (MDIs) and Autohalers deliver aerosol medication.

Turbuhalers, Accuhalers and Elliptas deliver powdered medication.

**Aerosol medications** (Puffers and Autohalers) need *shaken* before use where as powdered medications do not.

**RELIEVERS** are bronchodilators. They primarily relax the muscles that wrap around the airway tubes (bronchioles). Relievers usually provide *fast acting, short term relief*. Relievers are used when a person is having an asthma attack. Relievers are coloured blue/grey.

**PREVENTERS** work on the underlying cause of asthma to reduce the sensitivity of the immune system so the body does not react to the asthma triggers. Preventers are slow acting and may take weeks to take full effect. Preventers DO NOT reduce the effects of an asthma attack - they make an asthma attack less likely. When a person is having an asthma attack, a preventer will NOT help them breathe easier. Preventers are coloured brown/orange.



Airomir Puffer

Airomir Autohaler



Asmol Puffer

Ventolin Puffer



Bricanyl Turbuhaler

<b>EMERGENCY</b> Blue, Blue/Grey	<b>Relievers</b>	<i>Metered Dose Inhaler = "puffer"</i>
	<b>Names</b>	Salbutamol brands are Ventolin, Airomir, Asmol. Terbutaline brand is Bricanyl.
	<b>Speed</b>	Fast acting.
	<b>Purpose</b>	Relax airway muscles.
	<b>Device</b>	Ventolin, Asmol & Airomir Puffer; Airomir Autohaler; Bricanyl Turbuhaler



Flixotide Accuhaler



Pulmicort Turbuhaler

<b>NOT FOR EMERGENCY</b> Orange, Brown	<b>Preventers</b>	
	<b>Names</b>	Brands include: Flixotide, Pulmicort, Qvar, Alvesco, Tilade, Intal Forte, Singulair
	<b>Speed</b>	Slow acting. Can take weeks for full effect.
	<b>Purpose</b>	Reduces the sensitivity to asthma triggers.
<b>Device</b>	Puffer, Accuhaler, Turbuhaler, Tablet.	



Qvar Autohaler



Alvesco Puffer

<b>NOT FOR EMERGENCY</b> Green	<b>Symptom Controllers</b>	
	<b>Names</b>	Oxis and Serevent
	<b>Speed</b>	Slower acting than relievers. About 30 minutes.
	<b>Purpose</b>	Relax airway muscles. Lasts up to 12 hours.
<b>Device</b>	Turbuhaler, Accuhaler	



Seretide Accuhaler



Seretide Puffer

<b>NOT FOR EMERGENCY</b> Purple	<b>Combination Medication</b>	Preventer plus a Symptom Controller
	<b>Name</b>	Seretide
	<b>Speed</b>	Slower acting
	<b>Purpose</b>	Prevention plus control of symptoms
	<b>Device</b>	Accuhaler or MDI (Puffer). Taken twice a day.

<b>Adult use only</b> Red & White	<b>Combination Medication</b>	Can be used in emergency for ADULTS
	<b>Name</b>	Symbicort
	<b>Speed</b>	Reliever is fast acting
	<b>Purpose</b>	Prevention plus control of symptoms
<b>Device</b>	Turbuhaler* or MDI (Puffer).	



Symbicort Puffer



Symbicort Turbuhaler

<b>Adult use only</b> Red & White	<b>CAUTION</b>	Symbicort may be used for casualties over 12, when prescribed. <b>Max 6 doses at a time. Max 12 doses per day of Symbicort#.</b>
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## ABC of First Aid Asthma &

**Anaphylaxis** is divided into seven main colour coded sections:

- 1. Essential First Aid**
- 2. Trauma**
- 3. Medical Emergencies**
- 4. Anaphylaxis**
- 5. Asthma**
- 6. Education & Childcare**
- 7. General First Aid**

In conjunction with an approved first aid course, this book will assist you learn the skills to handle most emergency situations.

This book incorporates the latest guidelines and is written for Australian conditions.

For training purposes, this book satisfies the Australian Health Training Package competency units:

**HLTAID001:** Provide CPR

**HLTAID002:** Provide Basic Emergency Life Support

**HLTAID003:** Provide First Aid

**HLTAID004:** Provide an Emergency First Aid Response in an Education and Care Setting

**22282VIC:** Course in the Management of Asthma Risks & Emergencies in the Workplace

**22300VIC:** Course in First Aid Management of Anaphylaxis

# ABC of First Aid Asthma & Anaphylaxis



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