



6th edition

ABC of CPR

Includes.....

- Oxygen
- Defib
- LVR



**International
Emergency Numbers**

Latest Guidelines



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Introduction

Congratulations on taking positive steps towards learning first aid which is an essential life skill we should all learn in order to help others and possibly save a life.

The **ABC of CPR** is written by a medical practitioner with experience in emergency medicine, hospital medicine, general practice and natural therapies.

The book contains clear, simple first aid advice which will assist you in handling most emergency situations.

Keep this book with your first aid kit in the workplace, at home, in your car or when travelling overseas.

How to use this book:

The **ABC of CPR** is divided into four main colour coded sections:

- **Essential First Aid** • **Advanced Resuscitation** • **Low Voltage Rescue** • **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.

Also at the back, there is a **First Aid Incident Report Form** which can be torn out and used in a first aid incident, and an **Emergency Numbers** page for writing local, national and international emergency numbers.

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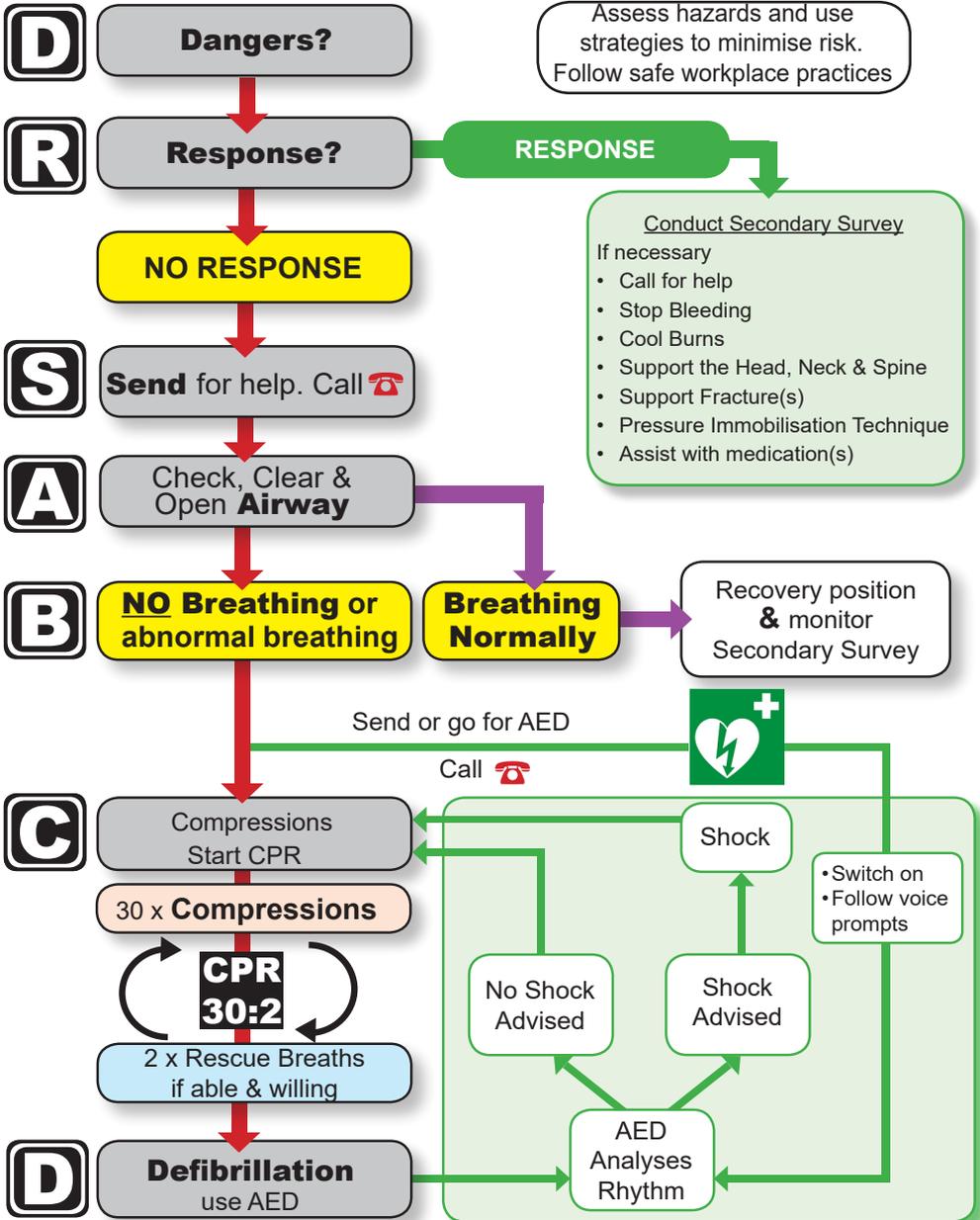
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Basic Life Support & AED

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In an EMERGENCY CALL  or 

DRSABCD

Dangers

- Survey Scene
- Remove or Minimise Hazards



Protect yourself - use antiseptics and barrier protection: gloves, mask, goggles.

HAZARDS!

- **Biohazards** – blood, body fluids
- **Chemicals** – spills, fumes, fuel
- **Electricity**
- **On coming traffic**
- **Fire, explosion**
- **Unstable structures**
- **Slippery surfaces**
- **Broken glass**
- **Sharp metal edges**
- **Needle stick**
- **Aggressive behaviour**

Response

- Talk and touch



SPEAK LOUDLY – Don't shout*

“Can you hear me?” “Open your eyes?” “What’s your name”. “Squeeze my hands”.

SQUEEZE SHOULDERS firmly – Don't shake

NB. Approach a collapsed casualty with caution, they could be anxious, irrational or aggressive.

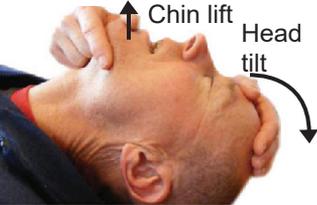
Drowning. Assess victim on the back with head and shoulders at the same level. This decreases the likelihood of regurgitation and vomiting. The casualty should **not** be routinely rolled onto the side to assess airway and breathing.

Send for help. Call

***To check for Response in infants (<1yr):** Check “grasp” reflex by placing your finger in the baby’s palm. Infants lose grasp reflex when unconscious. Unconscious infants are often limp, without muscle tone.

Airway

- Check - for foreign material which could be obstructing the airway.
- Open - use chin lift and backward head tilt to open airway.



- Use **pistol grip** to achieve chin lift. Watch that your knuckle doesn't compress neck and obstruct airway and breathing.
- If foreign material is present, roll casualty onto the side and clear using postural drainage and finger sweep method.

To clear foreign material



Spinal injury and infants (<1yr): Keep head in a neutral position (i.e. minimise backward head tilt)

- The airway takes precedence over any other injury including a possible spinal injury.
- Promptly roll casualty onto the side to clear the airway if it is obstructed with fluid (eg vomit)

Breathing

- Look - for rise and fall of lower chest/ upper abdomen
- Listen - for breath sounds
- Feel - for movement of chest and escape of air from mouth



Abnormal or NO Breathing?

- If casualty is **unresponsive and not breathing normally** after the airway has been cleared and opened, this indicates **cardiac arrest** and the rescuer should immediately commence chest compressions then rescue breathing (CPR).
- If unwilling or unable to perform rescue breathing, continue with compression only CPR.

NB. In the first few minutes after cardiac arrest, abnormal gasping sounds, sighing or coughing are common, but this is ineffective breathing and CPR should be commenced.

Electrical Supply Industry (ESI)

The Electrical Supply Industry is highly regulated. Low voltage rescue falls under one set of rules, with specific laws, regulations, codes of practice and other requirements. Each jurisdiction (State) has it's own laws. The laws that control electricity supply are similar in all States but have some important differences.



High voltage transmission

Workplace Health & Safety (WHS)

Regulation risk control requirements, do not usually justify the practice of working on an energised (live) low voltage installations. It is up to the employer, and the owner of the building, to ensure that this is only done where it is necessary and only if the risk of harm would be greater if that part of the installation's circuits or apparatus were to be de-energised.



High voltage and low voltage on same pole

Safe Approach Distances (SAD's)

are listed for different types of electrical installation.

Employees, trained and equipped with appropriate PPE* will be able to move closer to an electrical supply safely, than someone who has not been instructed and equipped. ESI workers and electricians must be aware of the SADs that are applicable to their workplaces.



Electric Shock has dangers for the rescuer as well as to the victim. As in all emergency situations the rescuer makes matters worse if they become injured themselves while trying to assist. *Make sure it is safe before approaching! In addition to treating for obvious injuries such as burns, cuts, fractures and blast injuries it is possible there are internal injuries and heart arrhythmias therefore ALL electric shock casualties must be referred for medical assessment.*

FIRST AID

- Check for dangers
- If no response follow basic life support (pg 3)
- Remove to a safe, ventilated area ASAP
- Check and treat for other injuries - burns are common.
- Refer for medical assessment Call 



Isolators & Circuit Breakers

An *isolator* is an *off-load* device. A *circuit breaker* is an *on-load* device. Circuit breakers are used to switch devices on/off. Isolators are used to electrically isolate equipment to make them safe to work on and sometimes earth the isolated circuit to provide additional safety. Isolators are more common in industrial applications but domestic electric ovens are often fitted with an isolation switch.

Isolators protect people working on electrical equipment

What is a Busbar?

Busbars are usually copper or aluminium strips or pipe. They are usually **un-insulated**. To protect people from shock, busbars are often inside secure cabinets, or in secure compounds only accessible to authorised personnel. Busbars can carry very dangerous fault currents (over 10,000 amps) which can cause extensive damage from arc flash and explosion.



Oxygen Therapy

Oxygen administration to a breathing casualty - conscious or unconscious

A conscious casualty with breathing difficulty (eg asthma or heart attack) usually finds it easier to breathe while sitting or semi-reclined. However, a casualty with shock or decompression illness from scuba diving, is positioned horizontally. Administer oxygen (O₂) to an unconscious, breathing casualty in the recovery position.

Conscious Casualty:

- Reassure
- Position casualty appropriately
- Explain what you are doing
- Explain that oxygen will help
- Turn on oxygen supply
- Select appropriate oxygen delivery device and follow steps:



Unconscious, Breathing Casualty

Oxygen Delivery Devices:

1) Standard Therapy Mask - Low to Medium % O₂

- Connect oxygen tubing to mask and oxygen outlet
- Open flow meter and check oxygen is flowing
- Set flow rate to 8lpm - adjust as necessary
- Position mask over mouth and nose with narrow end upwards and metal band over bridge of nose
- Pass elastic strap over casualty's head & adjust strap
- Squeeze metal band over nose - this prevents oxygen blowing into casualty's eyes
- Ask casualty to breath normally and observe



Some casualties won't tolerate a mask - allow casualty to hold mask near face.

2) Non-Rebreathing Mask

High % O₂

- Similar to standard therapy mask but has a reservoir bag
- Set flow rate to 15 lpm
- Ensure reservoir bag is inflated before fitting mask
- Fit as standard mask above



Oxygen Delivery Device	Flow Rate	% O ₂
Standard Therapy Mask	8	50%
Non-Rebreathing Mask	15	95%
Nasal Cannula	4	30%
Demand Valve	-	100%

3) Nasal Cannula - Low % O₂

- Connect oxygen tubing to prongs and oxygen outlet valve
- Open and set flow meter at 1-4 lpm - higher rates dry the nostrils
- Insert tips of prongs into nostrils
- Hook tubing around casualty's ears and tighten
- Ask casualty to breath normally



If oxygen is in short supply and emergency services a long way off, use a lower flow rate. This does not apply to scuba divers suffering from decompression sickness.

4) Demand Valve - 100% O₂

- Attach mask to demand valve and test if working
- Position mask over mouth and nose
- Press firmly to get a good seal
- Ask casualty to breath deeply and listen for a click as valve is triggered
- Sick, distressed casualties have difficulty triggering the valve - use a constant flow device instead which offers little resistance



ABC of CPR

ABC of CPR is divided into four main colour coded sections:

- 1. Essential First Aid**
- 2. Low Voltage Rescue (LVR)**
- 3. Advanced Resuscitation**
- 4. General First Aid**

Each subsection shows you step-by-step how to recognise and deal with an emergency situation.

In conjunction with an approved first aid course, this book will assist you learn the skills to perform CPR, LVR and Advanced Resuscitation.

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

- HLTAID009: Provide CPR
- HLTAID015: Provide Advanced Resuscitation and Oxygen Therapy
- UETTDRRF06: Perform Rescue from a Live LV Panel

This book incorporates the latest Resuscitation Guidelines and is written for Australian conditions. This book contains international emergency numbers and is a useful resource no matter where you are in the world.

