HLTAID009 - Provide cardiopulmonary resuscitation

Learner Guide

Name of the student	
Course date	

Introduction

Thank you for choosing Construction Training Group for your cardiopulmonary resuscitation (CPR) training. We have developed this Learner Guide to assist you to complete the Course in just half-day. This Learner Guide includes some basic information about the topics that will be covered in the class. Pre-study is not mandatory. However, it is highly recommended that students read the supplied pre-course study materials prior to attending the workshop at CTG.

How to use the Learner Guide

Simply work through the pages of the Learner Guide. The content provided for various topics is designed to assist your understanding of the relevant first aid principles.

If there are areas of the Learner Guide that you would like to clarify, make a note of these in the Learner Guide and discuss these with your trainer during the workshop day.

The content covered in the Learner Guide will be assessed during the practical activities conducted at the face-to-face workshop and in the written test at the end of the course.

To satisfactorily complete this unit of competency you must:

- Attend and participate in a full day workshop.
- Demonstrate your competency in performing cardiopulmonary resuscitation and the use of an automated external defibrillator.
- Complete a written test and achieve 100% accuracy.

The Training Day

Training is scheduled from 8.00am – 11.30am with a mini break during the day. Participants may bring their own snacks or purchase from a visiting food van or local food outlets. Tea and coffee are available on site.

Participants should note that CPR training will involve moderate physical activity, including kneeling and bending.

If you have special needs including those related to language, literacy or numeracy, a relevant disability or medical condition, or any other concerns you should raise these prior to attending the workshop.

Disclaimer

The training offered by Construction Training Group provides skills and knowledge in first aid management (in relation to CPR and use of AEDs) but does not constitute a medical, nursing or health professional qualification.

Construction Training Group accepts no responsibility for the subsequent actions of participants.

Construction Training Group does not accept any responsibility for any harm suffered by you as a result of your participation in the workshop and workshop activities.

This Learner Guide does not provide comprehensive information on all first aid situations and actions. Further details will be covered during the classroom training and practical sessions. You must refer to the Australian Resuscitation Council (ARC) guidelines for further reading.

All participants are advised to read our Student Handbook available via the web

www.constructiontrainninggroup.com.au

What is first aid?

First aid is the initial care of a sick or injured person. Prompt first aid can save lives in the critical time before emergency services or medical help arrives.
The key aims of first aid:

- ✓ Preserve life of anyone involved in an incident
- ✓ Protect any unconscious person
- ✓ Prevent any further injury or existing injury becoming worse
- ✓ Promote recovery of the casualty
- ✓ Reassure and provide comfort to the casualty.

Legal Considerations

The first aider has nothing to fear as long as they act reasonably, with caution and follow accepted first aid protocols.
Things to consider:

<table>
<tr><td colspan="2">Consent:
Informed consent must be gained prior to delivering any aspect of first aid, unless the casualty is unable to communicate. Here consent is assumed.
In instances where a child is the casualty, check if a parent/guardian is present and seek consent. If a parent/guardian is not present or child is of an age where consent is not possible, then you will stand in the place of the parent/guardian.</td><td>Duty of Care:
A legal duty owed by one person to another to act in a certain way.</td></tr>
<tr><td>Negligence:
To be found negligent it must be proven:
✓ A duty of care between the first aider and the casualty exists
✓ First aider did not exercise reasonable care and skill in providing first aid
✓ Casualty sustained damage resulting from an act or omission by the first aider</td><td colspan="2">Wrongs Act - now gives protection from claims for damages for personal injury to "good Samaritans" helping at emergencies or accidents, volunteers providing services for community work and donors of food (Parts VIA, IX and VIB). However, some exceptions will apply to those cases.</td></tr>
<tr><td colspan="3">To date there has been no successful litigation against a first aider.
You must act within your level of knowledge and skill base.
Understand your first aid responsibilities in your workplace/worksites.</td></tr>
</table>

Industry Guidelines

A range of guidelines are published by the **Australian Resuscitation Council** on first aid provision.
The industry bodies and organisations such as the **Australasian Society of Clinical Immunology and Allergy, Allergy and Anaphylaxis Australia and Asthma Australia** also provide first aid plans and guidelines.

Work Health and Safety (First Aid in the Workplace) Code of Practice 2015 and WorkSafe Victoria Compliance Code - First aid in the workplace (2021):

- ✓ Provide practical guidance for business owners on providing enough first aid facilities in the workplace.
- ✓ Include information on first aid kits, procedures, facilities and training for first aiders.
- ✓ Apply to all types of work and all workplaces.

First aid and CPR refresher requirements

First Aiders should undertake training to update their skills and knowledge at least once every three years.
Refresher training for CPR should be undertaken annually.

Vital steps

A first aider should:

- ✓ Assess the situation quickly – Question the casualty and any witnesses about the incident. Look for dangers before approaching the casualty and monitor the situation and environment. A casualty should be moved from the incident site when there is a danger or when it is safe to do so.
- ✓ The unconscious non-breathing casualty should be attended to first in a situation involving more than one casualty.
- ✓ Conduct a head-to-toe assessment of the casualty (if casualty is conscious explain what you are doing and ask permission) – look for any signs and symptoms
- ✓ Send for emergency services
- ✓ Care for the most serious injury or illness first
- ✓ If there is more than one casualty care for the casualty with most serious illness or injury first
- ✓ Get any bystanders to help if needed
- ✓ Stay with and monitor the casualty until emergency services or medical assistance arrives.
- ✓ Maintain appropriate body postures and handling techniques to prevent injuries (for example, musculoskeletal injuries such as back, neck, shoulder injuries).
- ✓ An unresponsive breathing casualty should be positioned in a recovery position (side lying position, with one hand supporting the head and the knee stopping the body from rolling onto the stomach).

Workplace first aid procedures

Examples of common workplace first aid procedures include:

- ✓ The location and care of first aid kits
- ✓ First aid training and providing first aid
- ✓ Recording incidents and injuries using the appropriate forms
- ✓ Etcetera

When providing first aid in your workplace, always act within the scope of activity and procedures of your organisation.

First Aid Kits

Part of being prepared is keeping an appropriately stocked and maintained first aid kit. Contents in a first aid kit may vary depending on the industry. It is also a good idea to keep one at home and one in the car. Everyone should have one – they come in a range of sizes with contents of the kit being relative to the size of kit.

You should know where your nearest first aid kit is at work, at home, when travelling.

- ✓ Store first aid kit in a cool, clean and dry location that is childproof.
- ✓ Check regularly to ensure all contents are present, not out of date, and in good condition
- ✓ Do YOU know where the nearest first aid kit is located?

A basic first aid kit may contain:

✓ Triangular and crepe bandages ✓ Disposable gloves ✓ Dressing materials	✓ Hypo-allergenic tape ✓ Resuscitation face shield ✓ Tweezers	✓ Normal saline solution ✓ Scissors ✓ Thermal blankets ✓ Disposable bags

It is recommended that medicines and needles are not kept in a first aid kit.

Improvising

There may be occasions where you need to give first aid but there is no first aid kit available. If a kit is not available, you will need to improvise first aid equipment by using whatever you can find but sort out the pros and cons of using the item before applying it. For example, using a plastic bag for gloves, and a folded face cloth wrapped in cling wrap as a non-adhesive pad are feasible and have positive outcomes. But using a plastic bag as a mask is not, as there is no substitute for a face mask. However, you should not let the absence of a first aid kit prevent you from offering some level of first aid to a casualty.

Communicating effectively in a first aid situation

Communicating effectively involves dealing with different people: ✓ Casualties ✓ Witnesses, bystanders or sometimes the victim's family members ✓ Emergency services ✓ Other first aiders.	Put yourself in their shoes … ✓ Introduce yourself ✓ Use casualty's name if known ✓ Speak clearly and calmly ✓ Be culturally sensitive ✓ Keep in mind the casualty's feelings ✓ Tell them you have first aid training.	Consider communication difficulties due to: ✓ Language barriers ✓ Noise/hearing problems ✓ Age or gender differences.

Be respectful at all times

Casualties come from a wide range of cultural, ethnic and social backgrounds across the lifespan, therefore it is important to: ✓ Avoid being judgemental – people will respond to events, pain, your actions differently ✓ Use appropriate communication ✓ Be sensitive to cultural norms .... seek permission ✓ Treat the injured person with sensitivity and respect ✓ Be mindful of relatives and friends who may be present	When treating a conscious casualty, it is always important to: ✓ Get consent ✓ Allow them to put themselves in the position of most comfort, and then look after them. ✓ Cause no intentional harm.
If a casualty had refused consent before becoming unconscious, you can only give the treatment required to save their life. When providing CPR or first aid to people, respect their privacy and avoid unnecessary exposure of the casualty	

Moving a casualty:

- ✓ Move the casualty if it is dangerous for the casualty to remain in the position they are in and only if it is reasonably safe for you to do so.
- ✓ Make every attempt not to move a seriously injured or unconscious casualty if they are in a safe area or position unless directed by the paramedics or until help arrives.
- ✓ Use correct lifting techniques (ankle drag, arm shoulder drag) and seek help, where required.

Assessing the sick or injured person

✓ Gather information about the HISTORY of the incident ✓ Ask the casualty to describe any SYMPTOMS ✓ Check carefully for SIGNS of injury or illness	Assess the following	
	✓ Conscious state ✓ Airway ✓ Breathing	✓ Circulation ✓ Skin colour/temperature

History

Try to get as much information about the history of an incident as possible.

- ✓ Remind participants that this is essential where it may not be immediately obvious what the problem is
- ✓ Discuss various ways to get information about the history of an incident
- ✓ Discuss incidents or illnesses where the history may be especially important, e.g. unconscious victim, medical emergencies, suspected spinal injuries etc.

Infection control

There may be a risk of cross infection when providing first aid so ...

- ✓ Treat all casualties as potentially infectious
- ✓ Cover open wounds with waterproof dressings
- ✓ Wear gloves and other personal protective equipment
- ✓ Wash hands before and after administering first aid
- ✓ If splashed with bodily fluids while managing a casualty, wash the area with soap and water as soon as possible.
- ✓ Follow appropriate steps when removing gloves without contaminating skin and splashing contaminants.
- ✓ Clean up spills and body fluids. With gloves on use paper towels. Double bag waste and cloths. Warm soapy water is okay if disinfectant/bleach not available.

Incident stress

- ✓ Stress during and after an incident is not unusual
- ✓ An incident potentially invokes strong emotional reactions as a result of:
  - Sights, smells and emotions you would not normally encounter
  - Experiences that are unfamiliar
  - Previous experiences with similar incidents
- ✓ Whilst stress is a normal response, sometimes it may lead to longer term problems.

Common signs and symptoms of stress include: All people react differently		
✓ Nightmares ✓ Guilt ✓ Grief ✓ Anger ✓ Depression	✓ Flashbacks ✓ Difficulty concentrating ✓ Nausea ✓ Vomiting ✓ Rapid heart rate	✓ Muscle pains ✓ Fatigue ✓ Dizziness ✓ Loss of appetite

GET HELP AND LOOK AFTER YOU!

You may seek help from:	**Maintain good relationships with**	**Maintain a healthy lifestyle**
✓ Ambulance officer or paramedic ✓ GP ✓ Counselling services ✓ Managers/HR ✓ Employee assistance programs	✓ Family ✓ Friends ✓ Work colleagues	✓ Exercise ✓ Eat well ✓ Avoid overuse of drugs and alcohol ✓ Take time out

Debriefing

Debriefing with the workplace supervisor after engaging in a first aid situation can:

- ✓ be used to assess own skills and limitations in providing first aid
- ✓ help first aiders to think about the emergency situation they have been involved in
- ✓ provides an opportunity for self-reflection and performance development.

Chain of survival

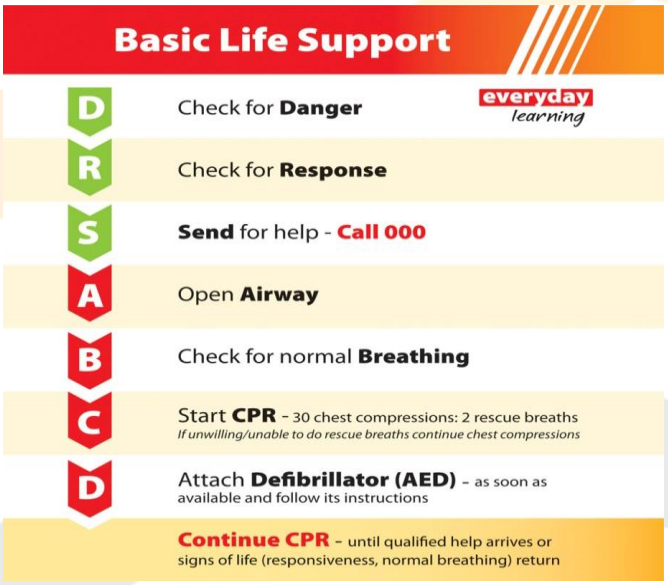
The Chain of Survival is made up of four key links.
These are:

- ✓ Early Access
- ✓ Early CPR
- ✓ Early Defibrillation
- ✓ Early Advanced Care

DRSABCD

The aim of CPR is to maintain adequate circulation of oxygen to the vital organs of the body.

The DRSABCD Action Plan assists you to prioritise both the assessment of the casualty and your management of the casualty.



'D'- Check for Danger ✓ To yourself, casualty and others ✓ Use all your senses ✓ Consider body fluids (blood, vomit, urine, sweat, saliva, faeces) -Wear gloves, use face shields and eye protection	Consider potential hazards: ✓ Isolated environment ✓ Aggressive casualties or bystanders ✓ Fire ✓ Electricity ✓ Working at heights ✓ Working in confined spaces

'R'- Response **Levels of Consciousness:** ✓ Fully conscious – responsive, alert, aware of time and place ✓ Semi-conscious – drowsy or confused ✓ Unconscious – unresponsive	**Check for response – COWS** **C**an you hear me? **O**pen your eyes **W**hat's your name? **S**queeze my hands (both sides) + Check for any Medical Identification tags

'S'- Send for Help **No Response:** ✓ Call for bystanders to help ✓ Delegate jobs to bystanders ✓ Once you are aware of the seriousness - call for medical help/ambulance	**What should I say??!** ✓ Call 000 for an ambulance ✓ Ask for ambulance services ✓ Provide the following: – Exact address of the emergency – Phone number you are calling from – What the problem is • Is the casualty conscious? • Is the casualty breathing? – Any hazards at the scene – Answer any questions ✓ Don't hang up until told to do so

'A'- Airway – Check in the mouth

- ✓ If casualty is lying on their back, leave in position
- ✓ Open their mouth and look for foreign material
- ✓ If the casualty is lying face down, turn to the recovery position to check for foreign material

Airway – If foreign material is present in the mouth

- ✓ Turn the casualty into the recovery position while supporting the neck and spine
  - Adults and children – Gently tilt head backwards
  - Infants – keep head in horizontal position
  - The trachea is soft, fragile and may be damaged if backward head tilt or jaw thrust is performed on infants
  - Allow natural drainage of foreign material or use two finger scoop into cheek (only remove dentures if loose or broken)

Airway not clear or unconscious – hands on forehead and head tilt, two finger scoop into cheeks. Do not go behind teeth. If you find an unconscious casualty and while checking their airway, you found loose dentures in the mouth, remove the dentures.
If unconscious - airway always has priority over other injuries including possible spinal injuries.

Recovery Position
Being on the side ensures the airway is maintained and there is less risk of the casualty choking or inhaling their vomit.

Turning the casualty: Two main points here

1. Ensure the head and neck of the casualty are supported
2. Ensure when moving the casualty your own safety is maintained

Remember that an unconscious victim lying on their back is at MOST risk from airway blockage caused by the tongue or by inhaling stomach contents.

'B'- Check for normal Breathing

Look Listen Feel

- ✓ Look for regular rising and falling of chest or upper abdomen
- ✓ Listen for air escaping from mouth or nose
- ✓ Feel for movement of the chest or upper abdomen

An abnormal breathing pattern such as gasping could be identified by the look, listen, feel technique.

'C'- No breathing = CPR

Start **CPR** – first give 30 chest compressions

- ✓ Place your hands on the lower half of sternum in centre of chest
- ✓ Compress lower half of sternum approximately 1/3 of chest depth
- ✓ Compression rate should be approximately 100-120 compressions per minute (almost 2 per second)

Measure up using W between notch at neck and end of sternum.

- ✓ Knees shoulder width apart
- ✓ Locked elbows – fingers off chest
- ✓ Use your body weight through your thighs and abdominal core
- ✓ 1/3 depth with palm in same place each time.

Compressions

Use the correct hand technique

- ✓ Adult – 2 hands
- ✓ Child – Either a one or two hand technique can be used for performing chest compressions in children depending on their size
- ✓ Infant – 2 fingers

When performing CPR on a person, the heel of the hand must be placed on the centre of the chest.
Head must be kept in neutral position when providing CPR to infants.

After 30 compressions, give 2 rescue breaths

- ✓ Ensure casualty's mouth and nose are sealed
- ✓ Blow gently into casualty's mouth until their chest rises
- ✓ Remove your mouth to allow air to be expired from casualty's chest. Observe chest inflation in-between breaths.
- ✓ Give second rescue breath

Drop down on elbow ... pinch nose and tilt head – large mouth (no kissing).
Watch for lung movement in between breaths.
It is recommended that the first aider should place their widely opened mouth over the infant's mouth and nose when providing ventilations.

When providing rescue breathing or ventilations:

- ✓ There is a very low risk of disease transmission.
- ✓ It is reasonable to provide rescue breathing without a barrier device.
- ✓ First aiders may consider using a barrier device, if available. Used face shield or pocket mask, if available.

Follow latest advice from relevant Government and health organisations and personnel.

Continue CPR

- ✓ Repeat cycles of 30 compressions and 2 breaths at rate of approximately 5 cycles every 2 minutes.
- ✓ * 30:2 *
- ✓ It is the same ratio for 1 or 2 operators.
- ✓ It is the same ratio for adults, children and infants.

No checking for pulse anymore, as searching wastes valuable time.

Put it all together:
Demonstrate five cycles in two minutes

- ✓ Watch for any signs of the return of normal breathing and response
- ✓ If normal breathing returns place casualty on their side
- ✓ Check response and breathing every 2 minutes

Can I stop? Yes you can ....

- ✓ If you are too physically exhausted to continue
- ✓ When a medical practitioner pronounces the casualty as deceased.
- ✓ The casualty responds and begin breathing normally again
- ✓ Another person takes over.

While providing CPR to a pregnant woman, place a padding under the right hip while both shoulders remain flat on the ground.

***'D'*- Defibrillation**

- ✓ Defibrillation is used to treat cardiac arrest.
- ✓ When cardiac arrest occurs the heart beats erratically.
- ✓ If not treated quickly Asystole will occur (heart stops) and leads to death.
- ✓ Defibrillation provides a measured shock to correct an erratic rhythm.
- ✓ Early defibrillation is vital to provide the best chance of survival.

Using the defibrillator – AED

- ✓ Ensure casualty has no signs of life and area is safe (e.g. away from water and metal surfaces). Defibrillation on a wet surface, for example poolside, is not dangerous.
- ✓ Switch AED on.
- ✓ Follow voice prompts.
- ✓ Remove pads from wrapping and apply promptly to bare chest.
  - Ensure chest area is dry and as hair free as possible.
  - Place pad in anterior-lateral position (one pad slightly below the collar bone on the person's right chest and one pad on the person's left side below the arm pit).
  - Avoid placing pads over implantable devices. If there is an implantable medical device the defibrillator pad should be placed at least 8cm from the device. Do not place AED electrode pads directly on top of a medication patch because the patch may block delivery of energy from the electrode pad to the heart and may cause small burns to the skin. Remove medication patches and wipe the area before attaching the electrode pad.
- ✓ Allow AED unit to analyse casualty's heart rhythm.
- ✓ If advised administer shock
  - Ensure nobody is touching the casualty - by calling out 'everybody stay clear! Delivering shock!'. Visually observe the area around casualty before pressing shock button.
  - Press Shock button
- ✓ Once shock is delivered continue CPR and follow voice prompts.
- ✓ SAFETY is vital, so ensure scene is safe and nobody is touching casualty prior to administering shock

Maintenance procedures for an AED

- ✓ Check if there is any crack on the exterior component and socket.
- ✓ Check the quantity, sealing and expiry of AED pads and spare battery pack.
- ✓ Clean and store the AED in its designated location.
- ✓ Ensure to replace batteries or charge the AED, as appropriate.
- ✓ Check the AED unit and accessories for any dirt and contamination.

Your trainer will go through the DRSABCD Action Plan in greater detail during the workshop.

Review of basic anatomy and physiology

- ✓ The sternum is a long flat bone located in the centre of the chest.
- ✓ A conscious person may respond to talk and touch and an unconscious person will not respond to talk and touch.
- ✓ To open the airway of an adult or child you must tilt head backwards until it stops (full head tilt), support the jaw and open their mouth.

Documentation – key points

- ✓ Stick to facts.
- ✓ Remember to maintain the casualty's privacy and the confidentiality of information.
- ✓ Consider retaining own copy of the first aid record for future use, such as a court hearing or assisting with providing police with information, as applicable.

First aid records are confidential, and information should only be released if requested by a legally authorised person.

Remember ....

- ✓ Refresh your CPR skills every year
- ✓ Update your First Aid certificate every 3 years

First aid situations you may come across in the community and in workplaces may:

- ✓ Be different from what you learned in the class.
- ✓ Be different across different workplaces, for example, suspension injuries related to harness use when working at a height, fall injuries, injuries arising from confined space incidents, injuries from machineries, chemical injuries etc.
- ✓ Result from mild to severe or fatal issues and consequences.
- ✓ Be stressful or have emotional impacts on you and others involved.

You must:

- ✓ Expect the unexpected.
- ✓ Keep your first aid and CPR skills current (comply with refresher requirements).
- ✓ Seek help from workplace supervisors and first aid officers to keep yourself updated on the common workplace injuries and incidents and their management.
- ✓ Promptly call 000 and/or contact the Poisons Information Centre on 131126 or seek help from experienced workplace personnel, as appropriate to the first aid emergency situation, when exposed to new or unsure first aid situations.

References

- Australian Resuscitation Council Guidelines
- St John Australian First Aid Manual
- Everyday Learning First Aid Training