



First Aid & CPR Training Inc.

CPR ONLY REFERENCE MANUAL

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ATTENTION

Please pay extra attention when you see this symbol.

Hello from all of us at Lifesaver 101 First Aid & CPR Training Inc. Thank you for selecting Lifesaver 101 to provide you with educational, enjoyable and effective CPR training. This reference manual is to be used with the hands-on approach to our interactive training. Please enjoy your program.

Learning objectives include clearly determining when to call 9-1-1 and what to do while waiting for help to arrive.

Being confident in CPR includes your ability to assess quickly and competently the components of an emergency situation. As a First Aider you will always follow the steps of Emergency Scene Management (ESM) by completing the **Lifesaver 101 Rules of 123 & ABC** and providing ongoing care.

Any scene of a medical emergency can be overwhelming for a first aider. By taking a first aid course you are equipping yourself with the knowledge you will need to become an effective and confident first aider. Pair that knowledge with the first aid supplies and equipment to do the job and you are on your way to helping any casualty.

LIFESAVER 101 COMMON FIRST AID TERMS

First Aid – First Aid is emergency assistance to an injured or ill person.

1. It increases their likelihood of survival.
2. Minimizes suffering.
3. Assists them in recovering from injury or illness.

First Aider – as a First Aider it is your job to take charge of the situation. You are not expected to diagnose injuries and illnesses but to assess and treat suspected injuries and illnesses.

History – any relevant medical information the casualty or bystanders can relay that will aid in first aid or medical treatment

Signs – things you may see (i.e. blood, skin colour, sweating)

Symptoms – things you are told that a casualty is experiencing as a result of their injury and/or illness (i.e. pain).

Mechanism of Injury (MOI) – the cause of the injury or illness which can help you provide the right treatment to the casualty.

Casualty – the injured or ill person.

A casualty's highest priorities are those related to breathing, specifically their airway.

A - AIRWAY

- Physical passages through which air enters the lungs.
- The tongue is the most common airway obstruction for an unconscious casualty on their back.



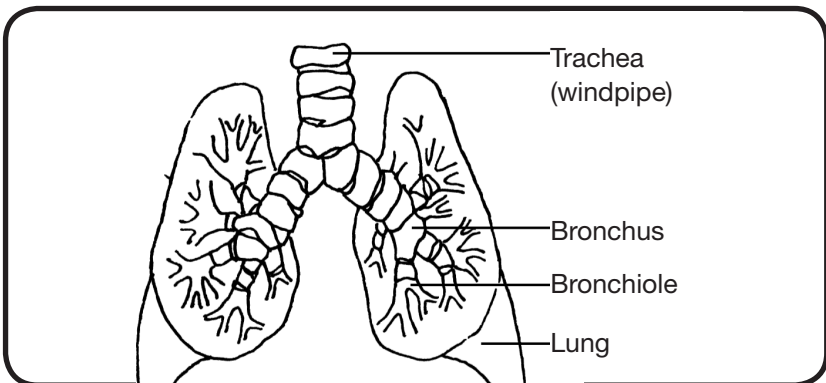
Casualty's tongue blocking airway



Head-tilt/Chin-lift method to remove tongue from blocking the airway

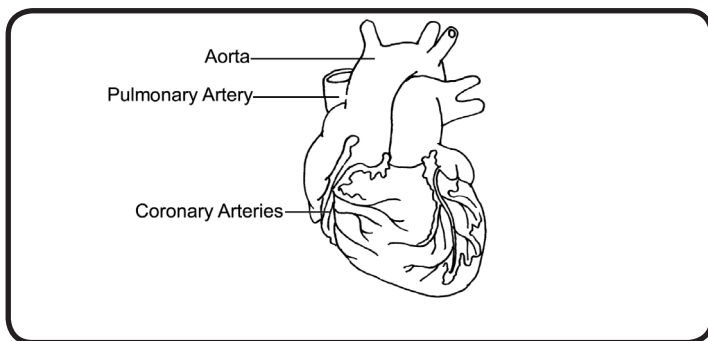
B - BREATHING

- A process where air containing 21% oxygen is taken into the lungs. The body will consume approximately 5% of this oxygen, thus leaving approximately 16% exhaled oxygen to be used in the ventilation process of CPR.
- The normal respiration rate for an adult at rest is 12 to 20 breaths per minute. A respiration rate under 12 or over 25 breaths per minute while resting is considered abnormal.



C - CIRCULATION

- Arteries and capillaries carry oxygenated blood to all the body's cells and, most importantly, to the brain.
- Brain damage may begin to occur if the brain is deprived of oxygen for approximately 5 minutes.
- After about 10 minutes brain damage is usually permanent and irreversible.
- An adult's heart beats approximately between 60 - 100 beats per minute.
- Check circulation by observing skin colour and capillary refill on the casualty. If distal circulation is poor, release and then rebandage the casualty.



- Agonal Breathing is an abnormal pattern of breathing characterized by shallow, slow (3-4 per minute), irregular aspirations followed by irregular pauses. It may also be characterized by gasping, laboured breathing accompanied by strange vocalizations.

SHOCK

Shock is the body's reaction to trauma due to an injury or illness. This results in a decrease of oxygen and other nutrients reaching the body's tissue (cells) and the brain (also known as hypoperfusion).

Shock can be life threatening. Therefore, understanding the mechanism of injury is essential in order to prevent this condition from worsening. Causes of shock may include: severe bleeding, heart attack, stroke, crush injuries, nerve and spinal injuries and motor vehicle accidents.

To simplify the recognition of other injuries and illnesses, first aiders need to recognize the following short list of signs and symptoms of shock. This will allow the first aider to tell the difference between signs and symptoms of shock and signs and symptoms of other conditions requiring first aid attention.

SIGNS & SYMPTOMS

- Pale, cool, clammy skin
- Nausea, vomiting
- Confusion, disorientation
- Restlessness, anxiety
- Blue lips, nail beds, earlobes
- Changing levels of consciousness
- SOB (Shortness of Breath)
- Weak, rapid heart rate
- Shivering
- Sweating
- Thirst

“TREAT THE CAUSE”

TREATMENT

- Begin ESM using Lifesaver 101's Rules of **123 & ABC**.

1 - Safety - Check for fire, wire, gas and glass, and other hazards. Take charge, introduce yourself, ask if you can help, find out what happened, look for the Mechanism of Injury (cause)

2 - Response - Start by talking/yelling to the casualty. If needed tap the casualty's shoulder with the tips of your fingers to try to get a response.

3 - Call 9-1-1 - If required call 9-1-1 or ask a bystander to call 9-1-1, confirm, and return.

& Assess the ABC's

A - irway – Ask what happened? If the casualty answers clearly you know the airway is clear. If the casualty is unresponsive, you may need to open the airway with a head tilt chin lift.

B - reathing – Check for effective breathing for no more than 5 seconds. If the casualty is responsive, ask if his breathing is ok.

C - irculation – Control bleeding, check skin colour and temperature for shock.

Specific Treatment

- Rest and re-assure the casualty. “Sit them down before they fall down.”
- Use one of the 4 shock positions on the opposite page.
- Warm the casualty.
- Monitor the ABC's and continue ongoing care until casualty recovers or help arrives.

Shock may be mild to severe and can be life threatening. Shock can occur due to physical, mental, or emotional trauma. To prevent the casualty's condition from worsening **Assess and Treat The Cause** of shock.

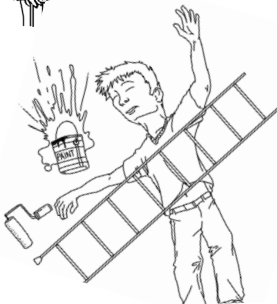
* Avoid giving anything by mouth to the casualty.

(Exceptions may include those suffering from heat exhaustion, diabetes or possible poisoning.)



Semi Sitting

Casualty is Conscious



Position Found

Casualty has suspected head or spinal injury. If the casualty is unconscious, open the airway.



Recovery Position

Casualty is unconscious, semi-conscious or conscious and no head or spinal injury is suspected



Supine Position

Casualty is conscious or semi-conscious and no head or spinal injury is suspected

HEART ATTACKS, STROKES, AND CARDIAC ARREST

Recognition by the first aider of the signs and symptoms of a heart attack, stroke or cardiac arrest is vital for providing care for a person suffering from either condition.

A HEART ATTACK occurs due to an insufficient amount of oxygenated blood reaching the heart muscle. This results in heart cell death and can trigger cardiac arrest. Most heart attacks are caused by CVD but can also happen when a severe spasm (tightening) of a coronary artery occurs that cuts off blood flow through the artery. A casualty suffering a heart attack requires immediate medical attention in order to receive timely life saving Advanced Cardiac Life Support such as medication to dissolve clots or surgery.

ANGINA occurs when one or more of the arteries becomes hardened and narrowed and the blood supply to part of the heart is limited. If the heart is working harder than normal and needs more blood it cannot get the oxygen it needs and the casualty may experience some of the symptoms listed below. These symptoms usually don't last long and are relieved by prescription medication.

SIGNS AND SYMPTOMS

Heart Attack / Angina

- Casualty may experience crushing pain in the chest or pain spreading from shoulders, jaw, neck and/or arms and back
- Feeling of indigestion or heartburn
- Denial of attack
- Loss of coordination
- Loss of bowel control
- Unsteadiness or a sudden fall

Note: Some or all signs and symptoms of shock may be present, such as:

- SOB (Shortness of Breath)
- Paleness, sweating, nausea/vomiting
- Changing levels of consciousness

HEART ATTACK – TREATMENT

1 - Safety - Check for fire, wire, gas and glass, and other hazards. Take charge, introduce yourself, ask if you can help, find out what happened, look for the Mechanism of Injury (cause)

2 - Response – Start by talking/yelling to the casualty. If needed tap the casualty's shoulder with the tips of your fingers to try to get a response.

3 - Call 9-1-1 - Call 9-1-1! This is a medical emergency! or ask a bystander to call 9-1-1, confirm, and return.

A - irway – Ask what happened? If the casualty answers clearly you know the airway is clear. If the casualty is unresponsive, you may need to open the airway with a head tilt chin lift.

B - reathing – Check for effective breathing for no more than 5 seconds. If the casualty is responsive, ask if his breathing is ok.

C - irculation – Control bleeding, check skin colour and temperature for shock.

SPECIFIC TREATMENT

- Ask the casualty where it hurts? Has this ever happened before? Do you have any medication for this pain?
- Place the casualty in a comfortable resting position.
- Loosen clothing of casualty to make them more comfortable.
- Assist the casualty to chew 1-2 low dose aspirin (review the 5 rights).
- Assist the casualty to take prescribed Nitroglycerin for relief of angina pain. Ask casualty if he is using medications such as Viagra to treat erectile dysfunction. If yes, do not assist with nitroglycerin as doing so may cause a significant drop in the casualty's blood pressure.
- If the casualty loses consciousness and stops breathing, start CPR!

USE THE FIVE RIGHTS FOR MEDICATION!

Right Person, Medication, Dose, Time, Route

Provide ongoing care “TREAT FOR SHOCK AND MONITOR THE ABC’s”



Regular check-ups with your physician could reveal preliminary medical conditions such as **Angina** or **TIA**s (Transient Ischemic Attacks).

Detection and awareness may prevent serious injury or death. A history of heart attacks and/or strokes may be indicated by a casualty wearing a medical alert bracelet, necklace or anklet. Early recognition of **Angina** or **TIA**s (commonly referred to as “mini strokes”) is essential for reducing the possibility of suffering from such a condition.

STROKE

A STROKE occurs when the flow of oxygenated blood to the brain has been interrupted due to blockage such as a blood clot or a rupture or aneurysm of a blood vessel (hemorrhagic stroke). A stroke is also an emergency that demands immediate medical attention!

Transient Ischemic Attack (TIA) is caused by lack of oxygen to part of the brain and has the same symptoms as a stroke but only lasts for a few minutes to 24 hours and leaves no permanent brain damage. This is a warning sign that a stroke may follow.

SIGNS & SYMPTOMS – STROKE AND TIA

F – Facial droop – one side of the face does not move as well as the other

A – Arm drift – have casualty hold both arms out . One arm may not move or drifts down compared to the other

S – Speech – casualty may slur words, be unable to speak or use the wrong words.

T – Time - get medical help immediately. The earlier a stroke is treated the better the outcome.

Casualty may also complain of;

- Confusion
- Weakness
- Headache
- Blurred vision
- Pupil dilation
- Body numbness, or paralysis (opposite side of facial paralysis)
- Loss of bodily functions
- These symptoms will occur FAST so act FAST! .

STROKE (OR TIA) – TREATMENT

- Begin ESM using Lifesaver 101's Rules of **123 & ABC**
- Call 9-1-1! This is a medical emergency. - Tell them the casualty is having a STROKE!
- Place the casualty in a comfortable resting position.
- Note the time signs and symptoms of stroke!
- Reassure the casualty and keep them warm.
- If the casualty experiences a decreased level of consciousness, place the casualty in the recovery position with the numb or paralyzed side down to reduce pressure on the functioning side (Remember: Dead Side Down)
- If the casualty loses consciousness and stops breathing, start CPR with compressions.

CARDIOVASCULAR DISEASE (CVD)/ATHEROSCLEROSIS

CARDIOVASCULAR DISEASE (CVD) is a group of conditions that affects the heart (cardio) and blood vessels (vascular). Atherosclerosis is the build-up of fatty substances along the inside walls of the arteries. This build-up creates a smaller blood flow route which results in unnecessary and unwanted work for the heart muscle, however, sometimes blood flow to the heart is completely restricted. There are a number of factors which can affect (raise or reduce) the risk of CVD. The narrowing and hardening of the arteries is a life long (continuous) process. Risk factors include those that are non-modifiable (cannot be changed) and those that are modifiable (can be changed).

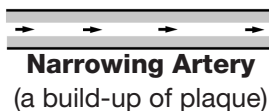
Non-Modifiable

- Heredity
- Age
- Gender
- Race

Modifiable

- Exercise
- Diet / Nutrition
- Weight
- Smoking
- Diabetes (controllable)
- High blood pressure
- High stress levels

ARTERIES AND BLOOD FLOW



CARDIAC ARREST

Cardiac arrest - is a medical emergency. When a casualty stops breathing and the heart stops beating, then a casualty is experiencing cardiac arrest. The casualties heart may be “shaking like a bowl of jelly” in a rhythm called Ventricular Fibrillation.

Cardiac arrest may have a variety of causes – heart disease, drowning, stroke, electrocution, suffocation, drug overdose, motor vehicle or other injury.

CARDIAC ARREST – TREATMENT

CPR will buy the casualty time until the defibrillator (AED) is used to “Zap” the heart back into a regular rhythm. The CPR sequence for Adults, Children and Infants are on the following pages.

THE “LIFESAVER SURVIVAL LINKS”

The “Lifesaver Survival Links” provide a First Aider a sequential way to deal with a casualty in cardiac arrest. Following the links in order is the casualty’s best chance for survival!

The following illustrates the Lifesaver Survival Links:



**Early
9-1-1**

**Early
CPR**

**Early
“ZAP”
(Defib)**

**Early
Advanced
Life Support
(EMS)**

**Early Integrated
Post-Cardiac
Arrest Care
(Hospital)**



COMPRESSION ONLY CPR

The Lifesaver Survival Links emphasise early recognition of the emergency, calling 911 and starting good quality CPR.

If you have not been trained in CPR or are unable or unwilling to give breaths to the casualty, for any reason - don't give up! You can do Compressions Only CPR.

Compressions Only CPR is CPR without the mouth-to-mouth breaths. All you need to do is provide high quality chest compressions by pushing hard and pushing fast in the center of the chest at a rate of 100-120 times per minute.

Remember - it is better to do something than nothing!

CARDIO PULMONARY RESUSCITATION (CPR)

Early CPR will increase a casualty's chance for survival. Stimulating the heart creates circulation and moves oxygenated blood through the body and into the brain. This will allow a casualty to be more responsive to early defibrillation.

In keeping with our simplistic approach to the "First Aider's Responsibilities," it is important to understand that resuscitation is not our goal. Once you begin CPR on a casualty you should continue administering aid until EMS arrives. Since EMS will have already been activated, administering CPR most likely will be limited to the average response time of emergency medical services in your area. ONCE YOU START CPR - DON'T STOP!!

SIGNS & SYMPTOMS

RESPIRATORY ARREST

- Chest does not rise and fall
- First Aider hears no breathing
- First Aider feels no breathing

CARDIAC ARREST

- No breathing detected
- No signs of circulation or life (no breathing, coughing, movement)
- Perspiration and skin colour changes.



DID YOU KNOW ...

Children, unlike adults, are likely to suffer respiratory arrest rather than cardiac arrest. Therefore, CPR is more likely to revive children.

CPR GUIDELINES FOCUS ON THESE PRINCIPLES

- 30 compressions : 2 breaths
- Push hard / Push fast (30 compressions in 15-18 seconds) 100 - 120BPM
- Ensure full chest recoil
- Minimize interruptions in CPR
- Avoid over ventilating, casualty may vomit as a result
- Early defibrillation is crucial (call 9-1-1 ASAP)

Casualty	Age	Ratio	Tools	Rate
Adult	over 8 years	30:2	2 hands	100-120BPM
Child	1-8 years	30:2	1-2 hands	100-120BPM
Infant	0-1 years	30:2	2 fingers	100-120BPM

ADULT CASUALTY (8 YEARS AND UP) - TREATMENT

Begin ESM using Lifesaver 101's Rules of 123 & ABC

Call 911 and get the AED!

A - irway – Open the airway with a head tilt chin lift.

B - reathing – Check for effective breathing for no more than 5 seconds.

C - irculation – Begin CPR starting with compressions..

- Kneel beside the casualty, place your hands in the center of the casualty's chest, lock your elbows.
- For an adult, use 2 hands and compress straight down 2 inches (5cm) but no more than 6 cm. Ensure resistance is met with the compressions.
- Push 30 times at a rate of at least 100 - 120 beats per minute. Count out loud.
- Give the casualty 2 breaths. Breaths should be 1 second long, just enough to make the chest rise.
- Continue to provide CPR until help arrives, the casualty begins to respond or you become exhausted.
- Use an AED if available.



ONCE YOU START CPR - DON'T STOP!

Only stop if the casualty shows signs of life, another trained rescuer takes over, you are exhausted or if your safety is at risk.

For a pregnant casualty receiving CPR, raise the casualty's right hip (while keeping the chest flat) to remove the weight of the unborn fetus off the blood return vessel allowing blood to flow back to the heart more freely.



CHILD CASUALTY (1 TO 8 YEARS OLD) - TREATMENT

Begin ESM using Lifesaver 101's Rules of 123 & ABC

Call 911 and get the AED!

A - irway – Open the airway with a head tilt chin lift.

B - reathing – Check for effective breathing for no more than 5 seconds.

C - irculation – Begin CPR starting with compressions.

- Kneel beside the casualty, place your hand in the center of the casualty's chest, lock your elbow.
 - Place your other hand on the child's forehead in order to maintain a partially open airway.
 - For an child, use 1 hand and compress straight down about 1/3 the depth of the chest. Ensure resistance is met with the compressions.
 - Push 30 times at a rate of at least 100 - 120 beats per minute. Count out loud.
 - Give the casualty 2 breaths. Breaths should be 1 second long, just enough to make the chest rise.
 - Continue to provide CPR until help arrives, the casualty begins to respond or you become exhausted.
 - Use an AED if available.
- * If alone with a unconscious non-breathing child, perform CPR for approximately 2 minutes; 30:2 (compressions to breaths) 5 times, and then call 9-1-1.**



INFANT CASUALTY (0-1 YEARS OLD) - TREATMENT

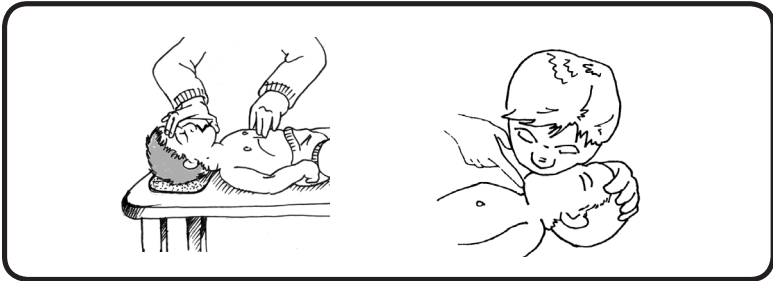
Begin ESM using Lifesaver 101's Rules of 123 & ABC

Call 911 and get the AED! A - irway – Open the airway with a head tilt chin lift.

B - reathing – Check for effective breathing for no more than 5 seconds.

C - irculation – Begin CPR starting with compressions.

- Position yourself beside the casualty and place 2 fingers in the center of the chest. Compress straight down about 1/3 the depth of the chest. Push 30 times at a rate of at 100-120 beats per minute. Count out loud.
- Give the infant 2 breaths by coving their mouth and nose with your mouth and giving 2 small breaths, just enough to make the chest rise.
- Continue to provide CPR until help arrives, until the casualty begins to respond, or you are exhausted.
- Use an AED if available.



If alone with an unconscious non-breathing infant, perform CPR for approximately 2 minutes; 30:2 (compressions to breaths) 5 times, and then call 9-1-1.



Found Unconscious Obstructed (Adult, Child and Infant)

Begin ESM using Lifesaver 101's Rules of 123 & ABC If a non breathing casualty has an obstructed airway, perform CPR.

Check the mouth for foreign objects & then attempt a breath. If unsuccessful, attempt to open the airway again and try a second breath. Continue to provide CPR until help arrives, until the casualty begins to respond, or you are exhausted.

AUTOMATED EXTERNAL DEFIBRILLATION (AED)

AED's (Automated External Defibrillators) save lives. Quick recognition of a casualty suffering a heart attack or a collapse requires activation of Emergency Medical Services (9-1-1) to get a defibrillator.

If a casualty suffers a sudden cardiac arrest, the likeliness of survival has a direct relationship to how quickly the casualty can be defibrillated. These machines will deliver an electric shock that momentarily disrupts a heart's chaotic electrical activity long enough for the nodes to reset and hopefully establish a normal heart rhythm again. The AED will provide audio and visual prompts for the rescuer.

AED's are to be used on all casualties. If child (Pediatric) pads are available, then use them on children and infants from 0 to 8 years of age. If the child pads are not available, then use the adult pads for children.

The casualty must be unresponsive and not breathing to require an AED to be attached to them. With children, perform 5 sets of 30 compressions and 2 breaths or about 2 minutes of CPR before attaching and using the AED.

HOW AND WHEN TO USE AN AED

1. Ensure your own safety 1st.
2. Ensure casualty is unresponsive.
3. Ensure **9-1-1** is called & AED is on route.

&

A - Airway (open with a head tilt chin lift)

B - Breathing (check for breathing for no more than 5 seconds.

C - Circulation (start CPR with compressions)

Continue to perform CPR until the AED arrives. When the AED arrives, have trained rescuers use the AED as soon as possible.

STEPS

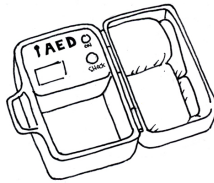
1. Turn on (or open) the AED and follow audio and/or visual prompts.
2. Bare the casualty's chest and attach the pads as indicated by pictures on pads.
3. Clear every one away from casualty and let the AED analyze the casualty's heart rhythm.
4. Press the shock button if told to do so by the AED.
5. Immediately begin CPR following shock delivered by AED.
(30 compressions followed by 2 breaths, and repeat 5 times).
6. Clear casualty, let AED analyze & deliver shock if advised to do so by the AED

***Repeat process until help arrives or until casualty shows signs of life.**

When pressing the shock button, the rescuer must shout and wave stand clear.

Please note that if no shock is advised, follow audio and or visual prompts and, unless the casualty shows signs of life, begin CPR.

AED Unit



SPECIAL CONSIDERATIONS

- Casualty should be dry. Wipe off water & ensure casualty is not laying in a large pool of water. This can reduce the effectiveness of the shock and possibly endanger the rescuer.
- If the casualty has a hairy chest, the rescuer may need to shave the casualty's chest where the pads are to be attached to ensure good contact.
- Medication patches should be removed from a casualty's chest to avoid interference to shock and for the rescuers safety in case contact to the rescuers skin occurs. Patches should be carefully removed and the chest should be wiped off.
- In cases of an implanted pacemaker or implanted defibrillator the rescuer must adjust pad placement so pads are at least 1" away from the device. These devices are located just beneath the surface of the casualty's skin and appear as an abnormal lump.

OTHER CONSIDERATIONS WHEN USING AN AED

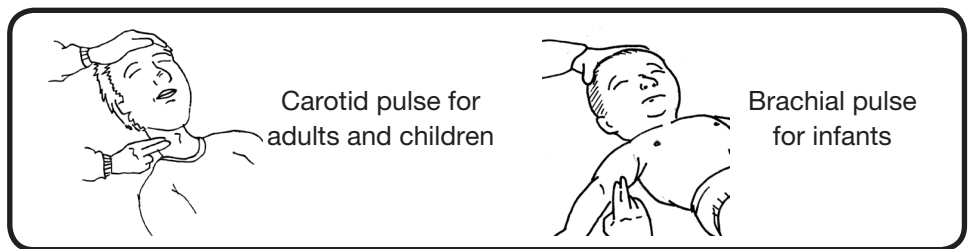
- It is not recommended to use an AED if severe trauma is suspected. If any uncertainty of severity, continue CPR and use of AED as required.
- With a casualty who has suffered severe hypothermia, deliver a maximum of 1 shock and if unsuccessful, continue CPR as required until help arrives.
- AED's can not be used in a moving vehicle, as the motion can interfere with the AED's ability to properly analyze the casualty's heart rhythm.
- If possible, AED use on metal surfaces should be avoided. Non conductive surfaces are best if the casualty can be quickly and carefully moved off the metal surface.
- AED training is highly recommended for proper and safe use of the device. Understanding audio and visual prompts are both prudent and necessary to provide optimal care for a casualty in cardiac arrest to survive.

HEALTH CARE PROFESSIONALS (HCP)

Health Care Professionals include Doctors, Nurses, Paramedics, Dentists, etc. The following techniques are to be performed in a clinical setting when two or more health care professionals are available. Lone health care professionals should tailor their rescue to reflect the most likely cause of arrest.

Sudden collapse requires a quick assessment to decide on the action to be taken. The healthcare professional should assess whether respiratory or cardiac arrest has occurred and respond accordingly.

To determine if the patient has experienced cardiac arrest or respiratory arrest health care professionals will assess the patient's pulse. Pulse checks should be carried out at the same time as the health care professional is assessing breathing. Pulses are assessed in the Carotid Artery for adults and children. Brachial pulse is to be checked for infants.



The following guidelines apply in a clinical setting with 2+ HCP

Casualty	Age	Ratio	Tools	Rate
Adult	over Puberty	30:2	2 hands	100-120BPM
Child	1-Puberty	15:2	1-2 hands	100-120BPM
Infant	0-1 years	15:2	2 thumbs	100-120BPM

During two rescuer CPR with an advanced airway in place, rescuers no longer provide cycles of compressions with pauses for ventilations. The compressor provides continuous compressions and the rescuer providing rescue breaths gives 8 to 10 breaths per minute. (1 breath about every 6 to 8 seconds).

When two or more healthcare professionals are present during CPR, rescuers should rotate the compressor role every cycle to avoid rescuer fatigue.

Healthcare professionals should use a modified jaw thrust to open the airway of a casualty with suspected head and/or spinal injuries. If this technique is taking too much time or is too challenging to perform the head tilt-chin lift should be performed.

To perform a modified jaw thrust - Grasp the corners of the lower jaw and lift with both hands one on each side moving the jaw forward without moving the neck. If the patient's lips are closed you may open them with your thumbs.



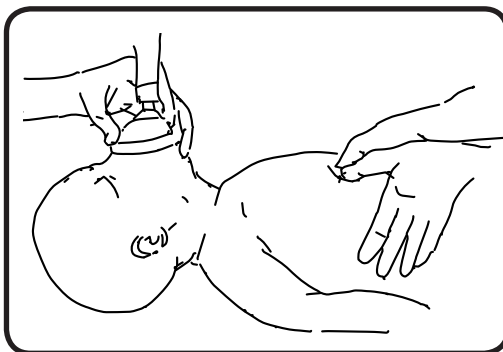
Modified jaw thrust

During two rescuer infant CPR, the two thumb-encircling hands technique should include a thoracic squeeze for chest compressions.

One HCP will utilize the BVM while the second HCP places their thumbs in the center of the chest and encircle the infant by placing their hands behind the infant's back. (thumbs always need to be touching; fingers may not always touch in the back if the infant is large or HCP has small hands).

Perform CPR by squeezing the infant with the fingers and thumbs at the same time. CPR on infants in a Health care setting is performed at a ratio of 15:2.

Switch with your partner every 2 minutes.

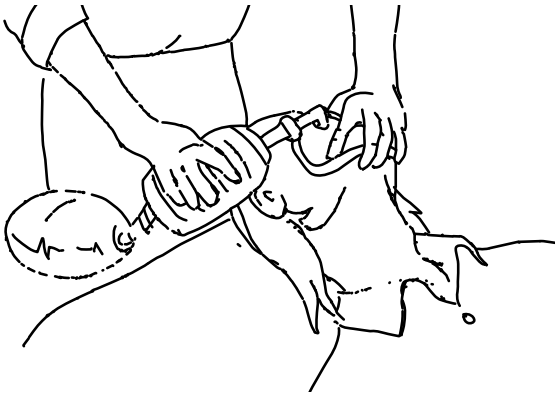


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HEALTH CARE PROFESSIONALS (HCP) (Continued)

Safety is of the highest priority for any health care provider. Health care providers should always use personal protective equipment(PPE) when performing CPR on a a casualty.

When providing ventilations it is ideal for a HCP to utilize a Bag Valve Mask (BVM). Use the 'EC' hand position to obtain a seal with the mask This position involves the thumb and index finger holding the mask. Once the position and seal are obtained, "bagging" can commence. The bag should be depressed for a full 1-2 seconds and then released. Chest rise should be seen. If you overventilate the patient they may vomit.



When the patient is experiencing respiratory arrest, a HCP will provide Artificial Respiration by providing rescue breaths using a BVM. In this case, the HCP will provide one 12-20 breaths per minutes.

If the patient has a confirmed or suspected spinal injury utilize a modified jaw thrust in combination with the BVM wherever possible.



If a BVM is not available a HCP may consider using a One way air-valve.(Pocket mask)

CHOKING

Choking is due to a partial or complete blockage of the airway. Choking can be caused when food, toys, medication or other objects are swallowed and block the airway. Air exchange is the key factor in determining how to render aid to a choking casualty.

COUGHING IS NOT CHOKING!

Intervention for coughing is not required. Simply encourage the casualty to continue coughing forcefully and stay with them. Follow them if they wander off to avoid isolation.

If the airway becomes completely obstructed, you must act quickly because this is a life-threatening emergency! The casualty may go unconscious and their heart may stop!



*Universal sign
for choking*

SIGNS & SYMPTOMS

OBSTRUCTION

1. Partial airway obstruction with good air exchange.
2. Partial airway obstruction with poor air exchange.
3. Complete airway obstruction.

CASUALTY

- Is able to speak
- Can cough forcefully
- Weak, ineffective cough
- Wheezing sounds
- Breathing difficulties
- Cannot speak, cough or breathe
- Distress and facial discolouration is apparent.

ASK! "Are you Choking?"

Sir, are you choking?



"I can help you, OK?"

I'm trained in first aid and I'm going to help! OK?



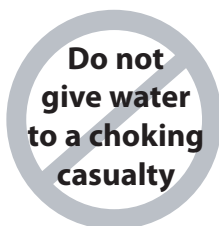
CHOKING - TREATMENT

Recognize air exchange and determine necessary treatment.

CONSCIOUS ADULT OR CHILD CASUALTY WHEN COUGHING

(Partial obstruction)

- Do not interfere.
- Encourage forceful coughing.
- Remain with casualty.
- Alert bystanders.



CONSCIOUS ADULT OR CHILD CASUALTY WHEN CHOKING

(Complete obstruction)

- Begin ESM using Lifesaver 101's Rules of 123 & ABC
 - Ask, confirm, and act quickly.
 - Follow the **"5 & 5"** - 2 step process for choking.

STEP 1

- Position yourself behind the casualty and assist him to bend over.
- Secure his arm and administer 5 back blows between the shoulder blades.

STEP 2

- Place one of your legs between the casualty's legs and keep your head tilted slightly to one side to protect yourself.
- Place a fist with thumb outside the knuckles near the navel but well below the xiphoid process (notch at lower part of the sternum).
- Clasp with other hand, and give 5 abdominal thrusts. Thrust inwards and upwards to create an "artificial cough," using as much force as required to dislodge the object.
- Alternate between back blows and abdominal thrusts until the object clears or the casualty loses consciousness.

CONSCIOUS ADULT OR CHILD CASUALTY WHEN CHOKING

(Continued)

- **REPEAT! “5 & 5”**



- Implement the buddy system and remain with the casualty until you are certain no harm will come to them or until help arrives.
- If the casualty is pregnant or if access to the abdominal landmark area is not possible, landmark on the chest as used for adult and child CPR. Use chest thrusts as an alternative method to clear airway obstruction.
- Wheelchair choking victims are treated the same - always make sure to lock the brakes on the wheelchair. Shorten the distance for chest or abdominal thrusts by crossing over the casualty's shoulder with one arm, and under their armpit with your other arm to landmark on the chest and thrust until the airway clears or the casualty becomes unconscious.
- If unsuccessful and the casualty becomes unconscious, tilt the wheelchair back, slide the person off the chair for safety, and treat them as unconscious. Activate EMS immediately, and perform CPR while waiting for help to arrive.

INFANT CHOKING (CONSCIOUS) - TREATMENT

Use air exchange recognition skills. If the infant's airway is obstructed, initiate 5 glancing back-blows followed by 5 chest thrusts. Continue this combination until the airway becomes clear (unblocked) or the infant becomes unconscious.



OBSERVED UNCONSCIOUS CHOKING / OBSTRUCTED ADULT/CHILD CASUALTY

TREATMENT - "When they fall, make the call!"

Aid the casualty to the ground and call 9-1-1.

If alone with a child perform 2 minutes of CPR (30:2, 5 times) then **call 9-1-1**.

With an adult casualty start CPR as soon as possible starting with compressions. Continue to with the steps of CPR but perform a visual check before opening the airway and giving the two breaths.

Look in the casualty's mouth and insert fingers only to remove a foreign object if visible at the back of the throat.

Open the airway (head-tilt/chin-lift) and give the casualty 2 breaths. If the first breath does not enter the lungs, reposition the casualty's head to ensure airway is open, then give a second breath.

If the airway becomes unobstructed (clear), reassess the Lifesaver 101 Rules of **123 & ABC** and provide ongoing care as needed.



Provide ongoing care "TREAT FOR SHOCK AND MONITOR THE ABC's"



Please Note:

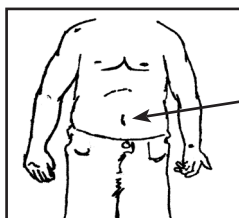
Always encourage the casualty of either a choking or other rescue procedure to seek medical attention to ensure no complications have occurred. As a precautionary measure, a bystander should call 9-1-1 ASAP for a still-conscious infant with an obstructed airway. If the foreign object is dislodged from the infant's airway during CPR, the bystander can give the 9-1-1 dispatcher an update. Always look in the mouth of an unconscious casualty if due to choking before delivering breath as this will avoid causing foreign objects to fall in further.

- If alone, try to use the back of a chair or similar object to create a forceful “artificial cough” to unblock your airway obstruction.
- You may also attempt to perform abdominal thrusts on yourself with your fist as you exit to seek help.
- Call 9-1-1 if unsuccessful. Tap your phone on the chair three times or depress any key three times in succession. This is understood by 9-1-1 dispatch to be a distress call. Unlock the door and exit quickly.



TORSO LANDMARK

Near the navel, and well below the xiphoid process.



Near the navel

CHEST THRUST

Use when abdominal area is not accessible. (pregnancy, obese)



SAFETY AND PREVENTION

- People who are walking/running while eating are more likely to choke
- Supervise children when they are eating, discourage playing while eating.
- Keep small objects out of reach of children, no toys when eating.
- Always cut food into manageable pieces.

