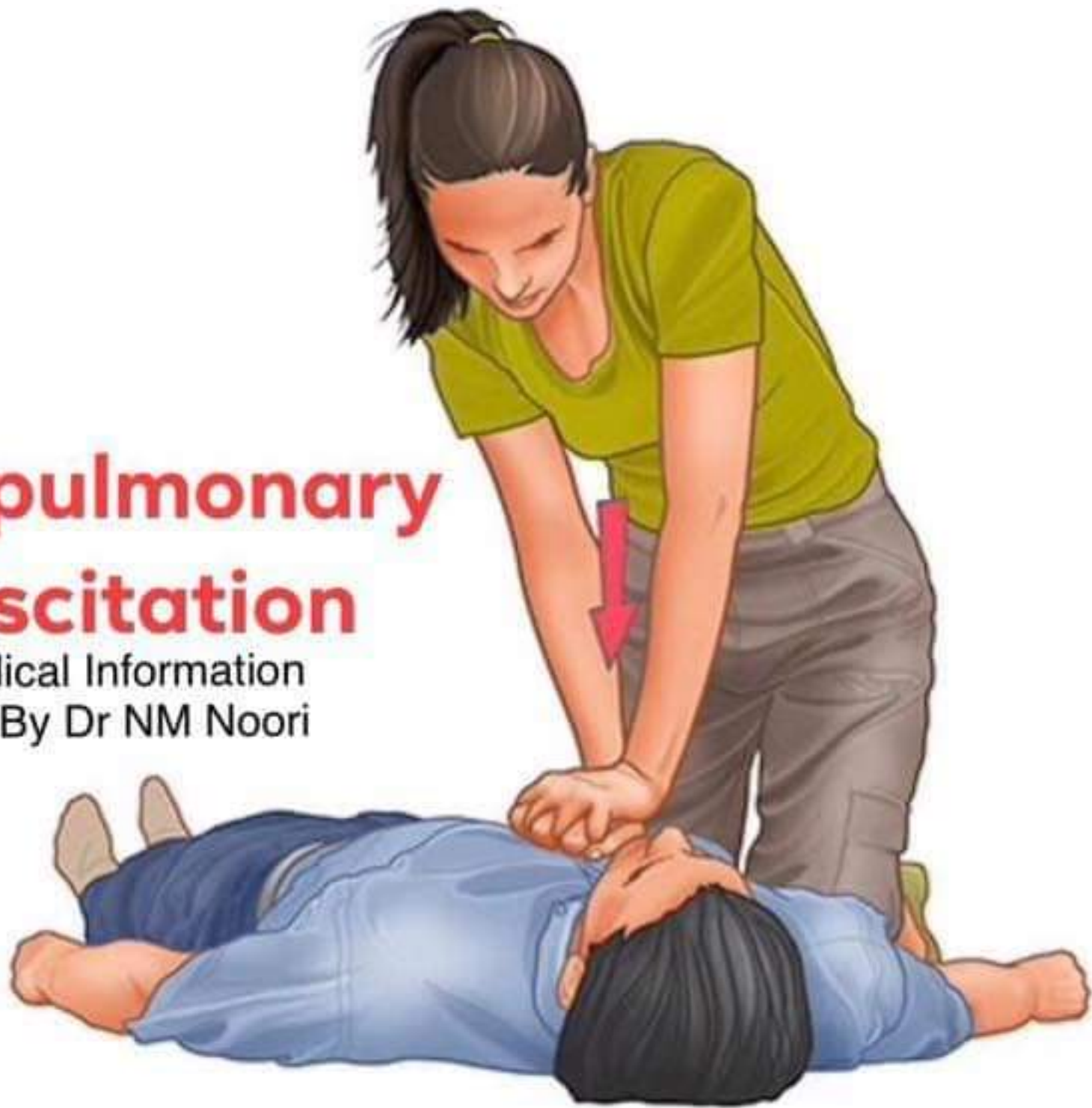


Cardiopulmonary Resuscitation

Like Medical Information
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Cardiopulmonary Resuscitation

CPR-what is it?

- **C**ardio = HEART
- **P**ulmonary = LUNGS
- **R**esuscitate = REVIVE

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Cardiopulmonary Resuscitation = Reviving the Heart and Lungs

- **CPR** is a technique used in an emergency when a person's heart has stopped beating and their breathing has stopped

The 4 Rs of CPR are:

- **Risk**: factors in your life that predispose you to developing heart problems or a stroke.
- **Recognize**: how to recognize the signs of a developing medical emergency;
- **React**: what to do when you see a developing emergency.
- **Resuscitate**: how to do CPR and how to help someone who is choking.

Patient assessment

If you find someone collapsed, you can use the mnemonic “**DR ABC**” to help you remember what to do



KEEP
CALM
AND
CHECK
DRABC

D: Danger

- > Ensure there are no dangers to yourself, other bystanders or the casualty
- > Ask yourself - why has the casualty collapsed? Are there any hazards? Am I at risk?
- > Dangers could include: moving vehicles, electricity, water, other people and smoke/fire
- > Only help if it is **safe** to do so

R: Response

- > Try and wake the casualty up - are they responsive?
- > Kneel by his/her head, shout loudly in both ears and tap them on the shoulders
- > If no response, the casualty is **unconscious**

At this point...

- > If a casualty does not wake up they are **unconscious**.
- > This is an **emergency situation**
- > Try and attract attention to yourself/the casualty by shouting for help
- > However, do not leave the casualty

A: Airway

- > The airway is the tube which takes air from the mouth/nose to the lungs
- > When a casualty is unconscious, their tongue can fall backwards and block their airway.
- > This can cause an obstruction and stop the casualty from breathing

A: Airway (2)

- > To open someone's airway, place one hand on their forehead and tilt their head backwards
- > Then place two fingers on the bony part of their chin and lift it.
- > This is known as the "head tilt, chin lift" maneuver.



Blocked Airway



Open Airway

B: Breathing

- > Keep your hands on the person's head/chin
- > Place your cheek above their mouth and look at their chest
- > **Look, listen and feel** for regular breathing for up to 10 seconds.

Irregular shallow gasps is not normal breathing. This is a phenomenon known as 'agonal breathing' and should be treated as not breathing

C: Call an ambulance

- > If a casualty is not breathing normally, call an emergency ambulance immediately
- > If a bystander is available, they can call the ambulance for you
- > Ensure you tell the operator that you have an unconscious, non-breathing casualty.

Adult CPR

- > After an ambulance has been called, you should commence CPR.
- > First, you should give 30 chest compressions
- > Place your hands in the centre of the person's chest, over the breastbone (sternum)
- > Interlock your fingers
- > Push down **30** times at a rate of **100 - 120** compressions / minute

Chest compressions

Ensure your elbows are locked and your shoulders positioned above the chest

Push down to a depth of about **5cm**

Ensure you release fully after each compression



Rescue breaths

- > After **30** chest compressions, give **2 rescue breaths**.
- > Tilt the casualty's head backwards, lift their chin and then pinch their nose
- > Make a seal over their mouth and breath in for approximately **one** second

Adult CPR

- > Continue the cycle of **30 chest compressions** to **2 rescue breaths** until help arrives
- > If there is more than one first aider, swap over doing chest compressions regularly
- > If a defibrillator arrives it should be used immediately

Chain of Survival

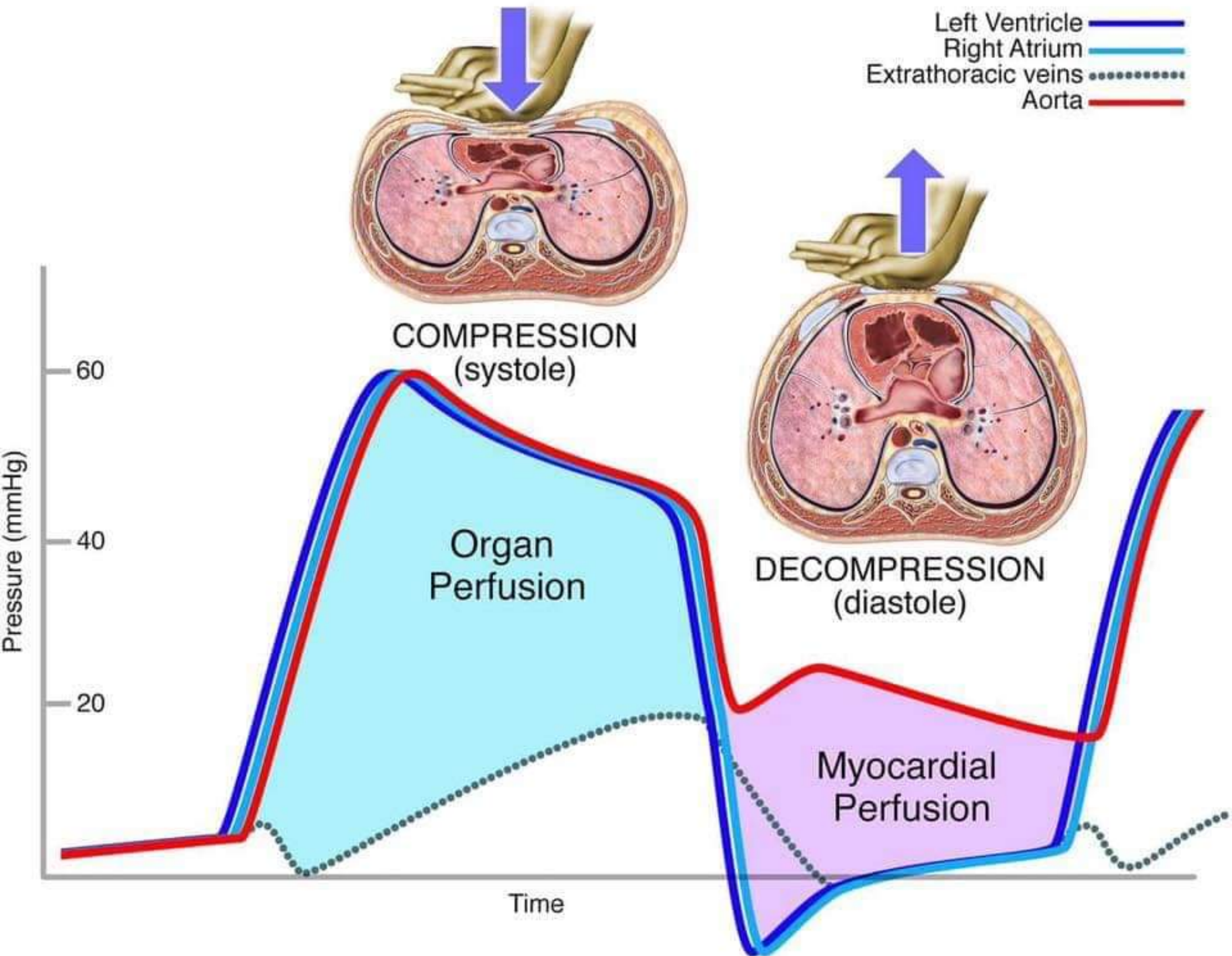


CPR is a key part of the Chain of Survival. The chain of survival describes the links which give the best chance of survival to a patient in cardiac arrest









RESUSCITATION (CPR)

D

DANGER

Check for hazards & ensure safety

R

RESPONSE

Check to see if Unresponsive/Unconscious

S

SEND FOR HELP

Call the ambulance on 000

Adults & Children



A casualty who is unresponsive and not breathing normally needs urgent resuscitation

A

AIRWAY

Open airway, Head tilt/Chin Lift

B

BREATHING

Check breathing, if not breathing / abnormal breathing commence CPR

C

CPR

30 compressions : 2 breaths
(if unwilling or unable to do breaths, consider doing chest compressions only)

D

DEFIBRILLATOR (AED)

Attach AED as soon as available and follow its prompts

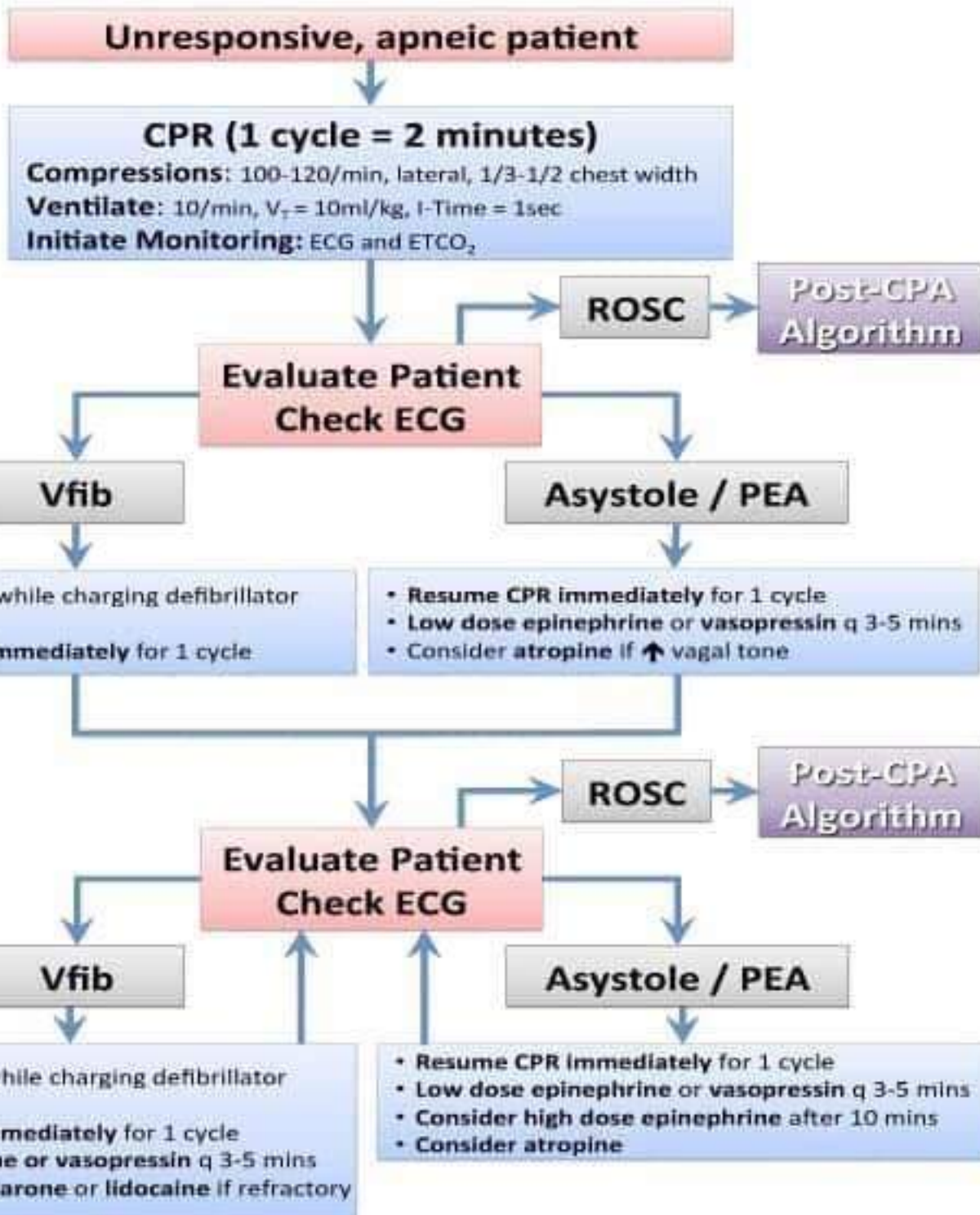
Infants Under 12 months



Continue sequence until responsiveness or normal breathing returns, or help arrives

	HEAD TILT	PRESSURE	DEPTH	BREATHS	RATIO	COMPRESSION RATE
ADULTS & CHILDREN	Yes	2 Hands	1/2 chest depth (Approx 5 cm)	Full breaths	30 Compressions : 2 Breaths	Compressions should be performed at the rate of almost 2 per second (i.e. continuous rate of 100 per minute)
INFANT (birth - 1)	No	2 Fingers	1/2 chest depth (Approx 4 cm)	Puffs	30 Compressions : 2 Breaths	

CPR Algorithm



Infant or child collapses with possible cardiac arrest

If unresponsive*:

Activate emergency response system
Call for defibrillator but do not delay CPR

Assess for pulse and breathing (look, listen, feel)

If not breathing but
has pulse:

Give rescue breaths
12-20 breaths/min
once every 3-5 sec

every
2 min

If not breathing and no pulse:

Start CPR

C: Give 30 chest compressions

A: Open airway

B: Give 2 slow (1-sec) breaths

If > 1 rescuer is present, give 2 breaths after
every 15 compressions

Attach monitor/defibrillator when available

Assess rhythm

VF/VT

Attempt defibrillation (1 shock)

CPR for
2 min

Not VF/VT
(asystole or PEA)

CPR for
2 min

Secondary ABCD Survey

A: Attempt to place an airway device

B: Confirm and secure airway device,
ventilation (10 breaths/min), and oxygenation

C: Start an IV line; may consider an adrenergic drug
and/or antiarrhythmics

VF/VT
Epinephrine 0.01 mg/kg
IV/IO q 3-5 min

Not VF/VT
Epinephrine 0.01 mg/kg
IV/IO q 3-5 min

Amiodarone 5 mg/kg IV/IO; may
repeat twice

Lidocaine 1 mg/kg IV/IO, then
20-50 mcg/kg/min

D: Search for and treat reversible causes

A = airway
B = breathing
C = circulation

D = differential diagnosis
VF = ventricular fibrillation
IO = intraosseously

VT = ventricular tachycardia
PEA = pulseless electrical activity

hand placement & position

ADULTS

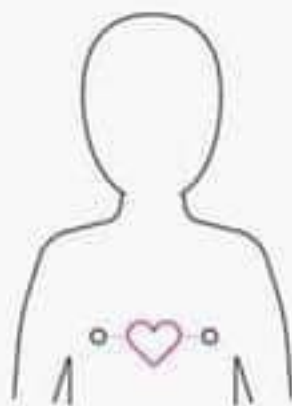


BOTH HANDS

interlocked
between nipples



CHILDREN 1 - 8



ONE HAND

between nipples



INFANTS



TWO FINGERS

just below
nipple line



chest compressions



press down
↓ **2 inches**



press down
↓ **2 inches**



press down
↓ **1.5 inches**

30 compressions at

100 - 120 compressions **per minute**

allow chest to recoil between compressions

Immediately follow with **rescue breaths**

life happens.

PLAN FOR IT.

YOUR GUIDE TO HANDS-ONLY



This type of CPR is recommended for teenagers and adults, not infants or young children.



1

Tap the person to see if they're responsive, and ask if they're ok.

If unresponsive, call 911. If the person is not breathing, begin CPR.



2



3

Place the palm of your hand on top of your other hand, and lace your fingers together.

Kneel down, place your hands in the center of the chest, and keep your shoulders directly over your hands.



4



5

Push down hard, wait for the chest to rise, and repeat. Maintain a rapid pace, and try to do 100 compressions per minute.

Continue until emergency services arrive.



6

PlanForIt.org



CHI St. Luke's
Health
Emergency Services

Sources:
American Red Cross
American Heart Association