Adult BLS (Basic Life Support) for Lay Rescuer
Based on the New 2010 CPR Guidelines of the AHA and ILCOR
PHILIPPINE HEART ASSOCIATION, INC.
COUNCIL ON CARDIO PULMONARY RESUSCITATION

Sources: UST-FMS Med1 Lecture (October 29, 2014)

HEART DISEASE: #1 cause of MORTALITY

Sudden Cardiac Arrest – A Health Burden

- Approximately 50% of deaths from CVD occur as SUDDEN CARDIAC ARREST
- Sudden Cardiac Arrest is the most common mode of death in patients with CAD
- Almost 80% of out-of-hospital cardiac arrests occur at home and are witnessed by a family member
- Only 4-6% of sudden cardiac arrest victims survive because majority of those witnessing the arrest do not know HOW TO PERFORM CPR

SUDDEN CARDIAC ARREST

- Unpredictable, can happen to anyone, anywhere, at anytime
- Risk increases with age
- PRE-EXISTING HEART DISEASE is a common cause
- Often strikes people with no history of cardiac disease or cardiac symptoms
- Many victims never had any heart problems

WHAT IS CPR?

- CPR = Cardio-Pulmonary Resuscitation
- Effective CPR done immediately after cardiac arrest can double a victim’s chance of survival

CPR ➔ within 4-6 minutes
ACLS ➔ within 8 minutes

THE NEW CHAIN OF SURVIVAL

1. Early access – immediate recognition and activation
2. Early CPR
3. Early defibrillation
4. Early advanced care
5. Integrated post-cardiac arrest care

THE FIRST LINE: Early Access

- A well-informed lay person – key in the early access link
- Recognition of signs of HEART ATTACK and RESPIRATORY FAILURE
- Call for help immediately if needed
- Activate the Emergency Medical System
MED 1: Basic Life Support

Early Warning Signs of Heart Attack
- prolonged compressing pain or unusual discomfort in the center of the chest
- may radiate to shoulder, arm, neck, jaw, usually on the left side
- may be accompanied by sweating, nausea, vomiting and shortness of breath

Early Warning Signs of Respiratory Failure
- unable to speak, breath or cough
- clutches neck (universal distress signal)
- bluish color of skin and lips

UNIVERSAL DISTRESS SIGNAL → “Clutches Neck”

SECOND LINK: Early CPR
- Life saving technique for cardiac & respiratory arrest
- Chest compressions

Why is early CPR important?
- CPR is the BEST treatment for cardiac arrest until the arrival of ACLS care.
- prevents VF from deteriorating to ASYSTOLE
- may increase the chance of defibrillation
- It significantly improves survival

Who may learn about CPR?
- CPR is an easy and life-saving procedure and can be learned by anyone
- One does not need to be a doctor to learn how to do CPR

How does CPR Work? brain, lungs and heart

THE TECHNIQUE AND STEPS IN CPR
- IF YOU WITNESS A CARDIAC ARREST
  - Person drops dead
  - Person loses consciousness

1. Survey the scene: “The scene is safe!”
2. Check unresponsiveness: Tap shoulder and say, “Hey, hey, are you OK?”
3. If unconscious, call for help: “HELP!”
4. After determining unconsciousness: Do C-A-B!
C is for **COMPRESSION**!

- to assist **CIRCULATION**
- after determining unconsciousness and calling for help, proceed immediately to do Chest Compressions!

5. Chest compressions

***IF YOU ARE...***

- A lay rescuer not trained in mouth-to-mouth ventilation
- Hesitant to do mouth to mouth ventilation
- Do not want to do it,
- **CONTINUE CHEST COMPRESSIONS ONLY** (HANDS-ONLY CPR)

Hands-only CPR

Continue Chest Compression until...

- Help arrives (Emergency services, Ambulance, Doctor)
- You are TOO TIRED to continue compressions
- Person is REVIVED.

****IF YOU ARE...***

- A lay rescuer trained in mouth to mouth ventilation
- **DO CONVENTIONAL CPR** (CHEST COMPRESSION WITH VENTILATION)

If you can do mouth-to-mouth, then you’ll do: **“chest compressions + ventilation”**

This is how you do it:

a. 30 chest compressions: “1, 2, 3, 4 ... 29, and ONE!
- 2 inches deep
- Remember: Allow recoil per compression!

b. 2 one-second breaths
So what’s the protocol for the “2 one-second breaths”?
Remember, you’re done with “C”...Next is “A-B” na!

In short;
a. 30 chest compressions → “Compressions”
b. 2 one-second breaths → “Airway, Breathing”
Remember. C is for compression ha! NOT circulation!

A is for AIRWAY!

- Open the Airway
- Use the head tilt/chin lift method
  - Place one hand on the victim’s forehead
  - Place fingers of other hand under the bony part of the lower jaw near chin
  - Tilt-head and lift-jaw – avoid closing victim’s mouth

B is for BREATHING!

- Give 2 one-second breaths
- Maintain airway
- Pinch nose shut
- Open your mouth, wide, take a normal breath, and make a tight seal around outside of victim’s mouth
- Give 2 full breaths (1 sec/breath)
- Observe chest rise & fall, listen & feel for escaping air

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Then, REPEAT CYCLES OF 30 COMPRESSIONS & 2 BREATHS!!!
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PULSE CHECK

- Recheck pulse EVERY 2 MINUTES (equivalent to 5 cycles CPR)
- Very brief pulse check – should take less than 10 seconds (at the same time check for normal breathing)
- In case there is any doubt about presence or absence of pulse, CONTINUE CHEST COMPRESSIONS
- For trained healthcare providers only

Head Tilt Chin Lift Maneuver

If OKAY NA,
If the victim is BREATHING,

- Maintain open airway & position the victim
- The unresponsive victim with spontaneous respirations should be placed in the recovery position IF NO CERVICAL TRAUMA is suspected
- Placement in this position consists of rolling the victim onto his or her side TO HELP PROTECT THE AIRWAY

The Recovery Position
Difference between BLS for Adults and Children.  
I think nice-to-know na lang to :>

***IF YOU ARE...***  
(ung sinabing hands-on CPR kanina, eto lang ung "extended discussion" nun. wag malito.)

- Not trained
- Do not know, not sure, hesitant or do not want to do mouth-to-mouth ventilation,

HANDS-ONLY CPR

- should ONLY be used for adult victims who have suddenly collapsed or become unresponsive
- **Recommendations:**
  - All victims of cardiac arrest should receive high-quality chest compressions
  - When an adult suddenly collapses, all bystanders should activate their community EMS and provide high-quality chest compressions, minimizing interruptions (Class I)
  - If not trained in CPR, provide hands-only CPR (Class IIa) until
    - AED arrives
    - EMS providers take over care of the victim
  - If not trained in CPR, provide either conventional CPR using 30:2 compression-to-ventilation ratio (Class IIIa) or hands-only CPR (Class IIa)

**KEY CHANGES IN THE NEW GUIDELINES**

- CAB instead of ABC
- Compress first
- No more Look, Listen and Feel
- HARDER → At least 2 inches compression, not 1 ½ to 2 inches
- FASTER → At least 100/min compression, not up to 100/min
- Deemphasize pulse checks
  - For trained healthcare providers → not more than 10 secs
- Check for normal breathing together with check for unresponsiveness
- Hands only CPR for the untrained lay rescuer

**Important Points**

- There are no mistakes when you perform CPR
- The only harm is to delay response
- Start chest compressions → now viewed as the most effective procedure
- All victims in cardiac arrest need chest compressions
- Don’t stop pushing
- Keep pushing as long as you can. Push until the AED is in place and ready to analyze the heart. When it is time to do mouth-to-mouth, do it quick and get right back on the chest
- 80-90% of cardiac emergencies occur at home
- Training is now simpler and more accessible
- Reduced number of steps and simplified process

Being trained to do CPR can save a loved one. Effective CPR done immediately after cardiac arrest can double a victim’s chance of survival.

**CPR SAVES LIVES.**  
**LEARN CPR TODAY!**

Inquire from the Philippine Heart Association  
www.philheart.org