

# **Safety in Physical Activities**

## **Physical Health & Fitness (PHF) Lesson:** Cardio Pulmonary Resuscitation (CPR) and Use of Automated External Defibrillator (AED)

**Conducted by: NTSS PE Department**

# OBJECTIVES

1. Basic knowledge of CPR & its importance.
2. Recognize a collapsed victim & perform CPR confidently & effectively.
3. Use the AED promptly & safely when available.

# Instructions

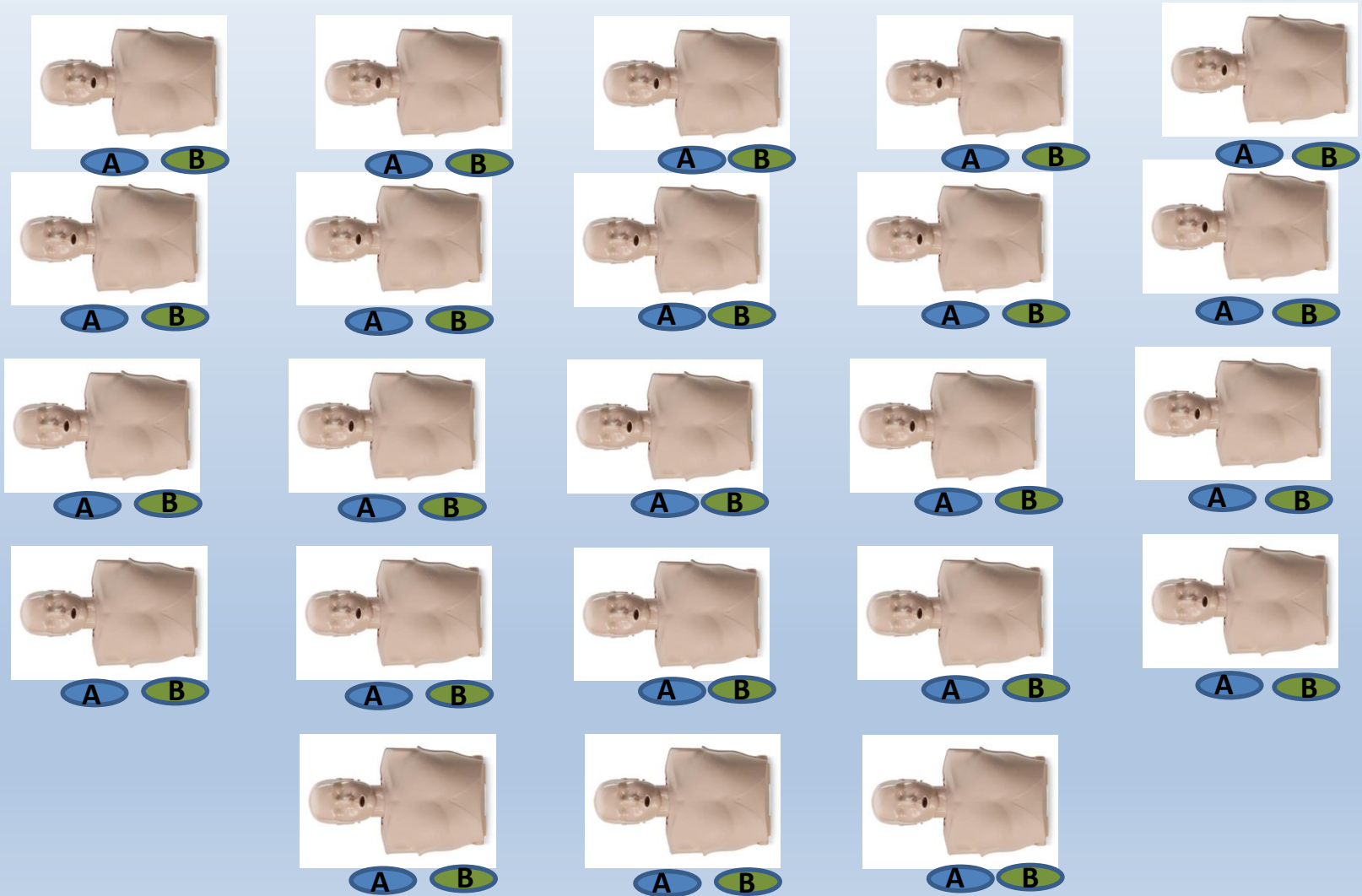
- Pair up
- Each pair to sit behind one set of equipment
- In your pairs, assign yourself 'Responder A and Responder B'
- Responder A & B will take up the position next to the manikin as shown:



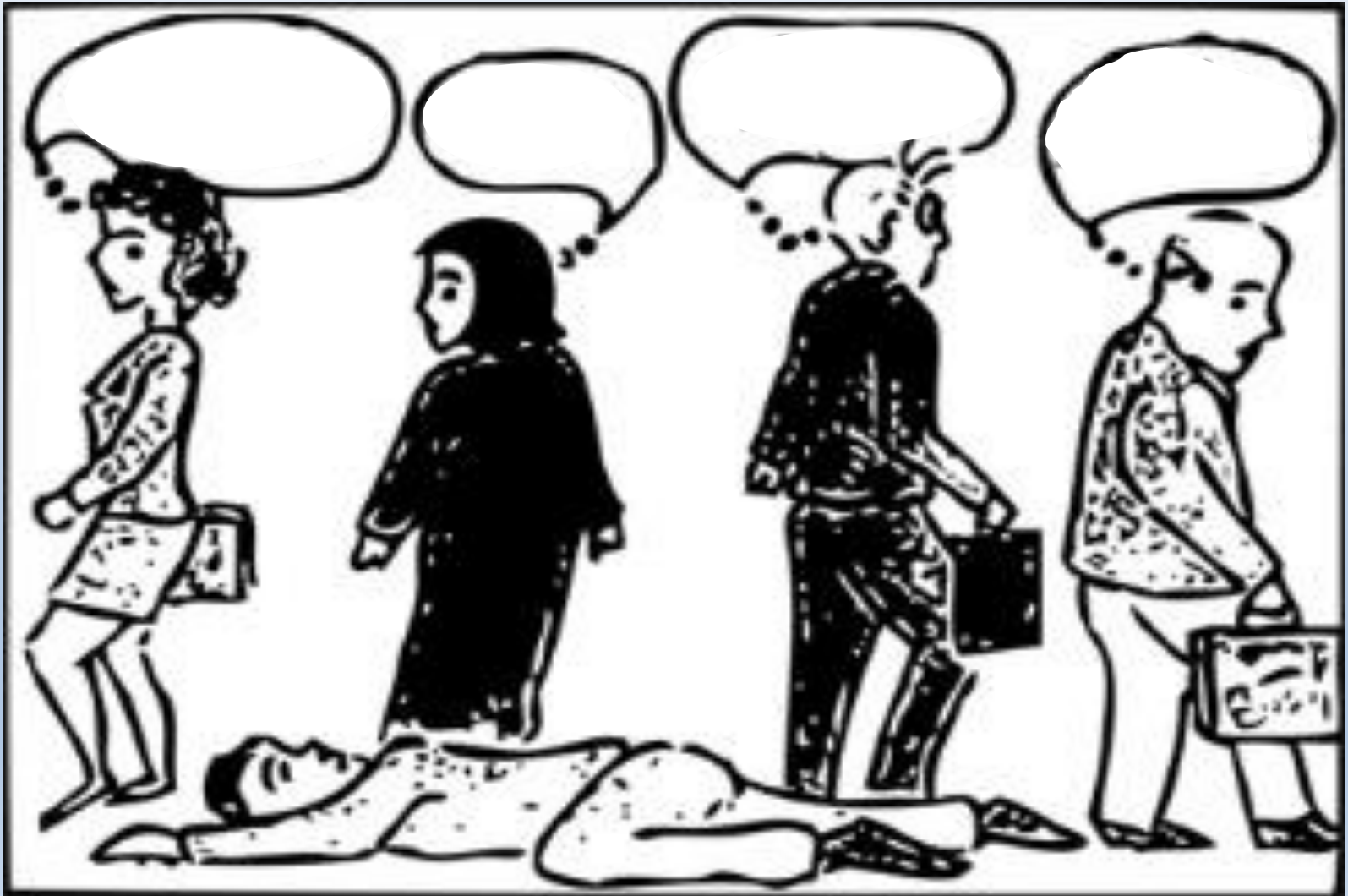
Responder A

Responder B

# Screen



# Who will help?



# Why did that happen?



Research has suggested that the bystander effect can be overcome if passers-by believe they possess the necessary skills to help.



**Bystander effect** – a situation where individuals are less likely to offer help to a victim when other people are present (*thinking that there would be others around to help instead*)

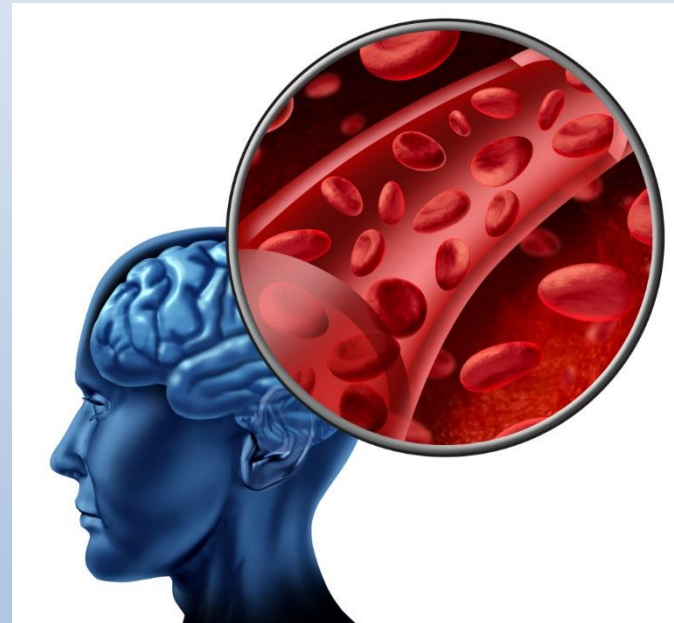
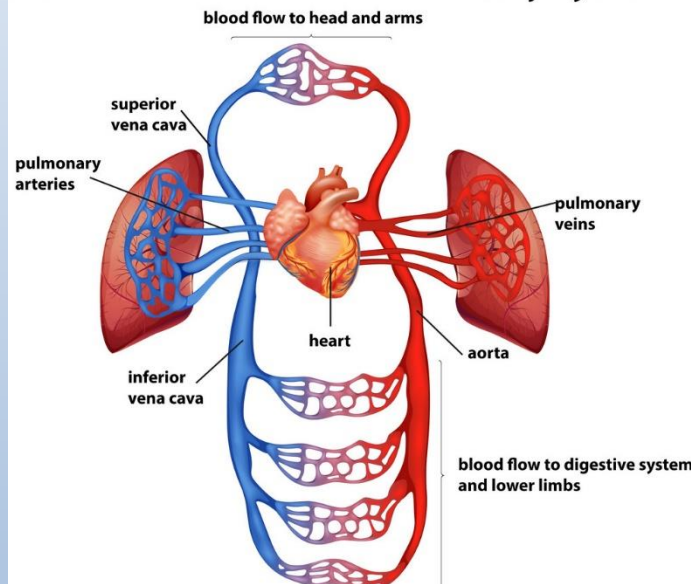
***The greater the number of bystanders, the less likely it is that any one of them will help.***

**Thus, being educated on this, makes one more likely to intervene and offer help!!**

# Circulatory System

**Brain cells start to die when deprived of Oxygen 4-6 mins!**

**Blood Flow in Human Circulatory System**



**Effective Chest compression can produce 1/3 of the normal cardiac output!!!**

# Facts

In Singapore, it takes an average of 10 minutes for an ambulance to arrive and 46 minutes before a patient reaches a hospital, underscoring the importance of having CPR administered as quickly as possible.

✓ Between 30-180 seconds of oxygen deprivation, you may lose consciousness.

✓ At the one-minute mark, brain cells begin dying.

✓ At the two-minute mark, survival becomes nearly impossible.

**Each minute delay reduce 7-10% chance of survival!**

inevitable.

✓ At 15 minutes, survival becomes nearly impossible.

## Not just old or male

Cardiac arrest can happen – and often, suddenly – to anyone, contrary to popular misconception

	MYTH	FACT
Gender	male	male or female
Age	old	any age
Bystander	victim is a stranger	likely to be a family member or friend
Medical history	heart attack	often no history of heart problem
Symptoms	chest pain, dizziness	sudden, often no symptoms



**Why CPR & Use of AED  
is part of  
our PE lessons  
because .....**

**Video – Heroic kids who came to the  
rescue**

# Introduction

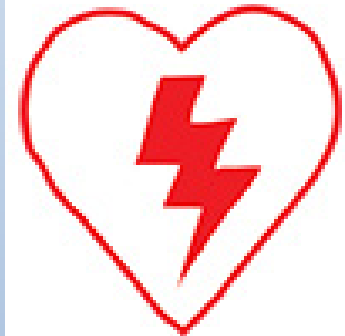
- CPR and AED lesson based on the Dispatcher Assisted First Responder (DARE) Programme



**STAY ON  
THE LINE**



**PUSH HARD  
AND FAST**



**AED**

# WHAT TO DO?

1. Seek help from others and call 995 for assistance in a possible cardiac arrest situation.
2. Stay on the line and follow the instructions given by the dispatcher.
3. Perform correct methods to:
  - Check for breathing
  - CPR (chest compressions only)
    - Use the AED

# **VALUES**

- ✓ Care & Concern

## **SOCIAL-EMOTIONAL COMPETENCIES**

- ✓ Self-Management
- ✓ Social Awareness
- ✓ Responsible Decision Making

## **21<sup>st</sup> CENTURY COMPETENCIES**

- ✓ Concerned Citizen
- ✓ Confident Person

# **Training Video**

# Reflection

- Take a moment to recall the lesson.
  1. *Why are we doing this?*
  2. *What does it take for you to react in an emergency situation?*
  3. *What are some thoughts or feelings you might have?*
- Share with your partner.

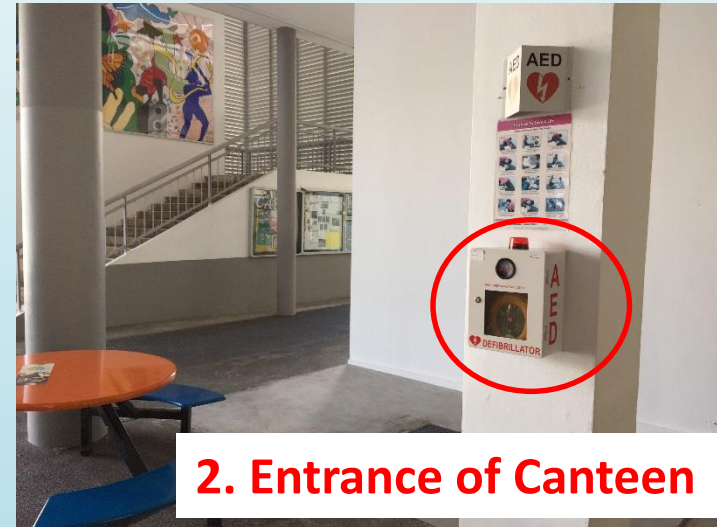


If no, then I have some for you!



# NTSS – Location of AEDs

- How many are there? Where are they?





# NTSS – Location of AEDs

- How many are there? Where are they?



**5. ISH Level 1 Basketball Court**



**6. ISH Level 2 , beside male toilet**

# Quiz Time!

Are you ready?

# Quiz Time!

1. When you see an unconscious person lying on the floor, how do you check for the victim's responsiveness?



- A. Using both hands, tap firmly on victim's shoulders and shout "Hello, hello, are you ok?"
- B. Using both hands, tap firmly on victim's chest and shout "Hello, hello, are you ok?"
- C. Call 995 and stay on the line.
- D. Ask someone to fetch an AED.

# Quiz Time!

2. If victim is unresponsive, you should:



- A. Dial 999 for ambulance and stay on the line with the medical dispatcher.
- B. Dial 995 for ambulance and stay on the line with the medical dispatcher.
- C. Dial 995 for ambulance and hang up the call.
- D. Dial 999 for ambulance and hang up the call.

# Quiz Time!

3. How do you check if the victim is breathing?



- A. Look for the rise and fall of the victim's chest.
- B. Listen for exhaled air from the victim's mouth / nose.
- C. Feel for the warmth of the exhaled air from the victim's mouth /nose.
- D. All of the above.

# Quiz Time!

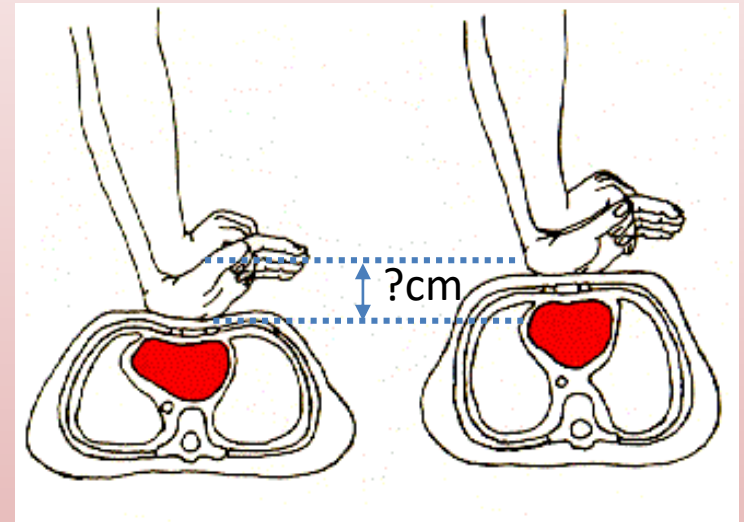
4. What is the rate of chest compression when giving CPR?



- A. 20 – 30 compressions per one minute.
- B. 60 – 80 compressions per one minute.
- C. 100 – 120 compressions per one minute.
- D. As fast as possible.

# Quiz Time!

5. What should the depth of the chest compression be when you are performing it?



- A. Between 4cm – 6cm.
- B. 10cm.
- C. 1 – 3cm.
- D. Depth does not matter as long as compression starts.

# Quiz Time!

6. What is the FIRST step you perform when you are using an AED?



- A. Remove the jewellery from the victim's body.
- B. Stop CPR.
- C. Turn on the AED.
- D. Press the "shock" button.



# Quiz Time!

7. What should you do when the machine prompts “Analysing heart rhythm, stay clear of the patient!”?

- A. Run far away.
- B. Switch off the AED.
- C. Open up both hands, shout “Stay Clear!” and makes sure no one touches the patient.
- D. Start to press the shock button.



# Quiz Time!

8. When should you stop chest compression?



- A. When ambulance crew arrived and ready to take over.
- B. When AED prompts “Analysing heart rhythm stay clear of the patient!”.
- C. When victim shows signs of life.
- D. All of the above.

# Quiz Time!

9. What should you do if there is no AED around you?



- A. Leave the victim alone and run off to search for AED.
- B. Start praying in hope of a passer-by to assist you.
- C. No need to do chest compression since there is no AED.
- D. Immediately start chest compression, ask passer-by to assist if any.

# Quiz Time!

10. Which 2 positions on the victim's body should you place the AED Pads?

- A. Position A & B.
- B. Position B & C.
- C. Position A & D.
- D. Position B & E.





Take some time to learn  
first aid and CPR. It saves  
lives, and it works.

Bobby Sherman

# The End!

*Thank you for your attention and your active participation!*