

# CPR & RECOVERY POSITION

Reference: SJA First Aid Manual 9<sup>th</sup> Edition Revised



**PENANG**

# Principles of Resuscitation

**Supply  
Blood  
Oxygen**



# What is CPR?

<b>C</b>	Cardio	Heart
<b>P</b>	Pulmonary	Lungs
<b>R</b>	Resuscitation	Restart



# When is CPR needed?

- **CPR** is **needed** for casualty with the following conditions:
  - **Unconscious**
  - **Abnormal breathing / No breathing**



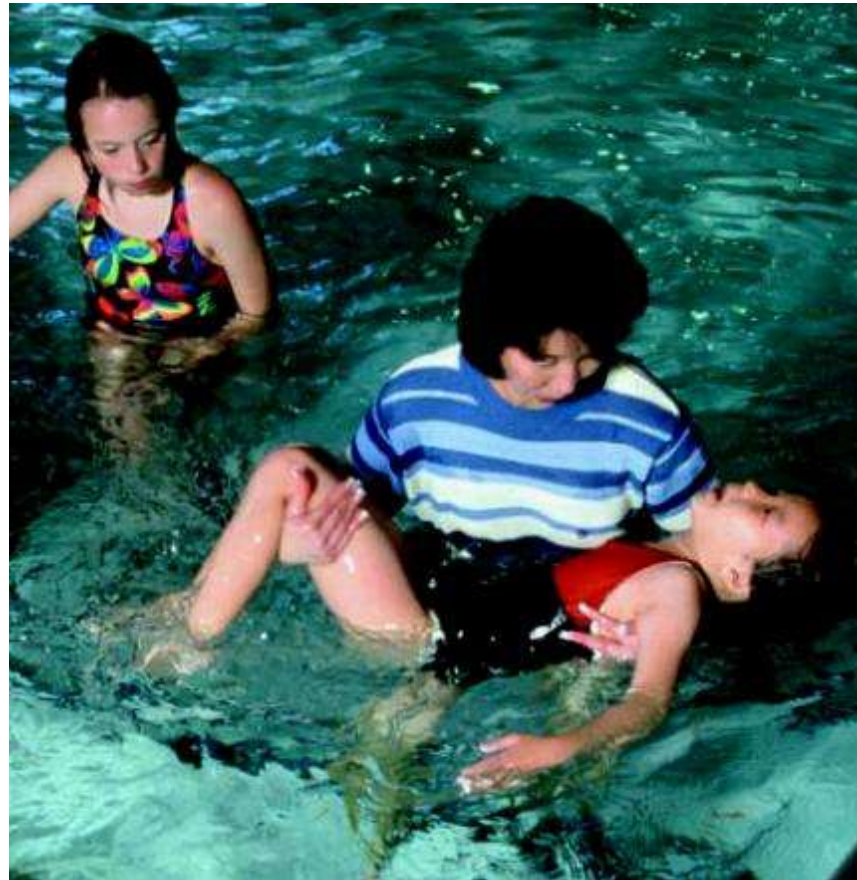
# Common Causes

## Heart Attack



# Common Causes

## Drowning





# Common Causes

## Electrocution



# Common Causes

## Severe Trauma





# Common Causes

## Choking



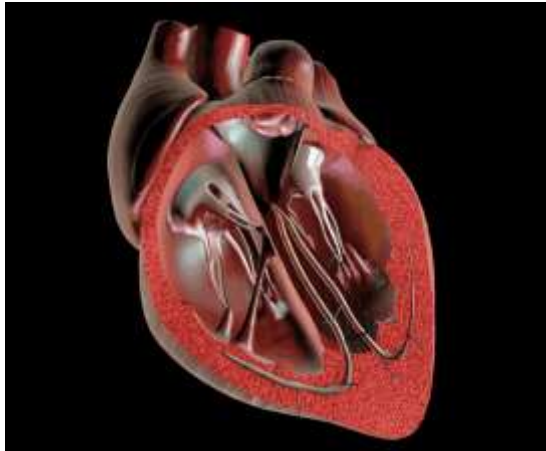
Universal sign  
for choking



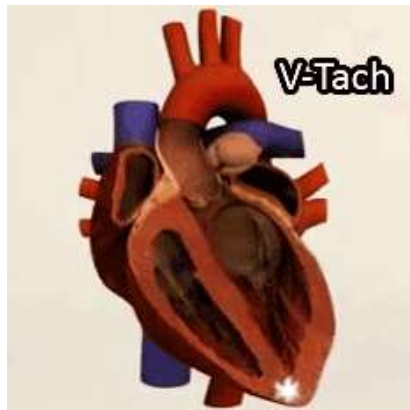
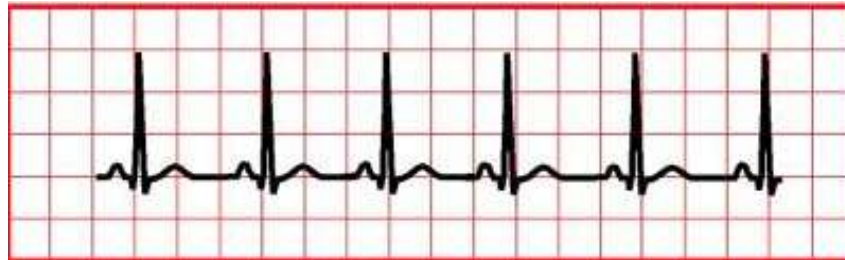
# Sudden Cardiac Arrest 心脏骤停

- SCA is not heart attack.
- Mainly abnormality of the heart's electrical system or structure that abruptly stops the heart from beating.
- If not promptly treated within minutes, it is usually fatal.
- **SCA** 不是心脏病。
- 它是心脏因心电活动失常，导致心脏停搏，血液循环停止
- 如不及时施救，可能导致死亡

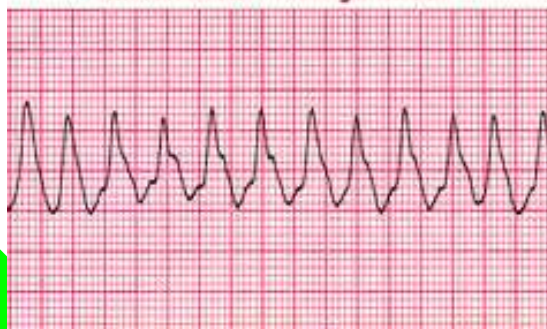




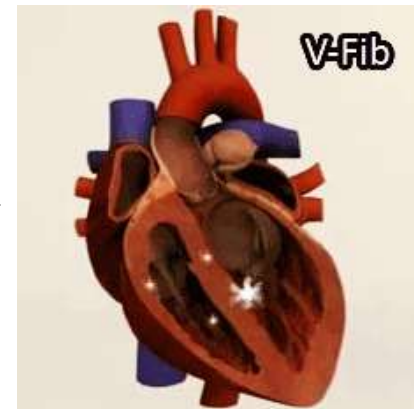
**Normal Sinus Rhythm**



**Ventricular Tachycardia**



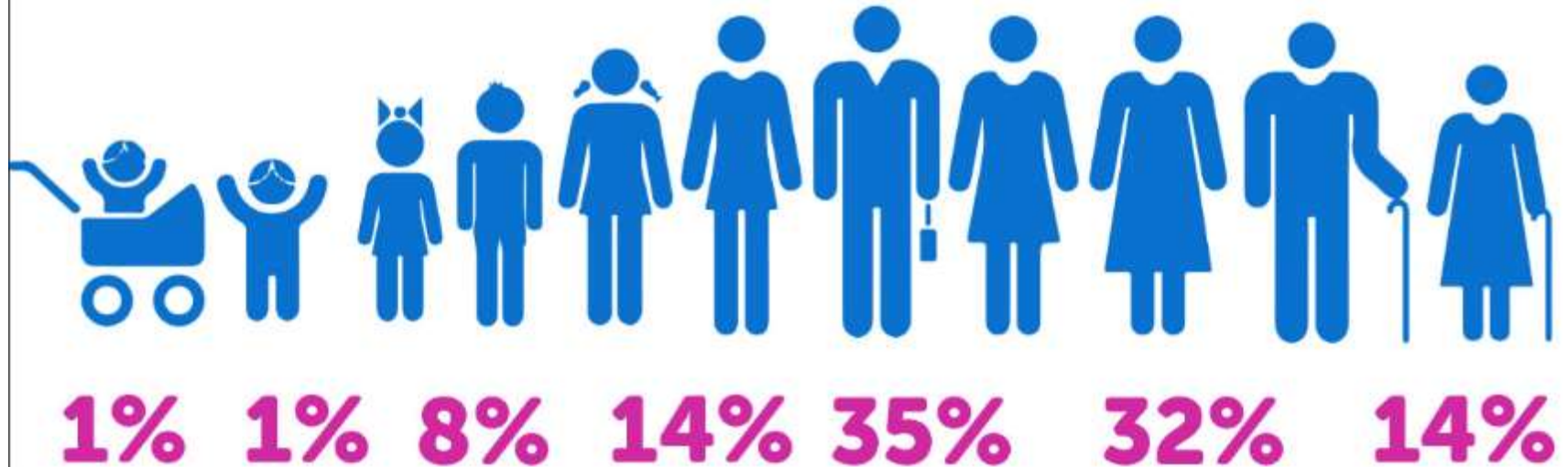
**← Abnormal Rhythm →**



**Ventricular Fibrillation**



OHCA can affect people of all ages at any time



任何人，任何年龄，在任何地方，因某种原因  
都可能发生心脏骤停  
大部分都发生在医院范围以外





# CPR Timeline

How long do you have?

0-4 mins.  
Brain Damage  
Unlikely

4-6 mins.  
Brain Damage  
Possible

6-10 mins.  
Brain Damage  
Probable

Over 10 mins.  
Probable Brain  
Death

脑细胞开始  
损坏

脑细胞  
已损坏

脑细胞坏死



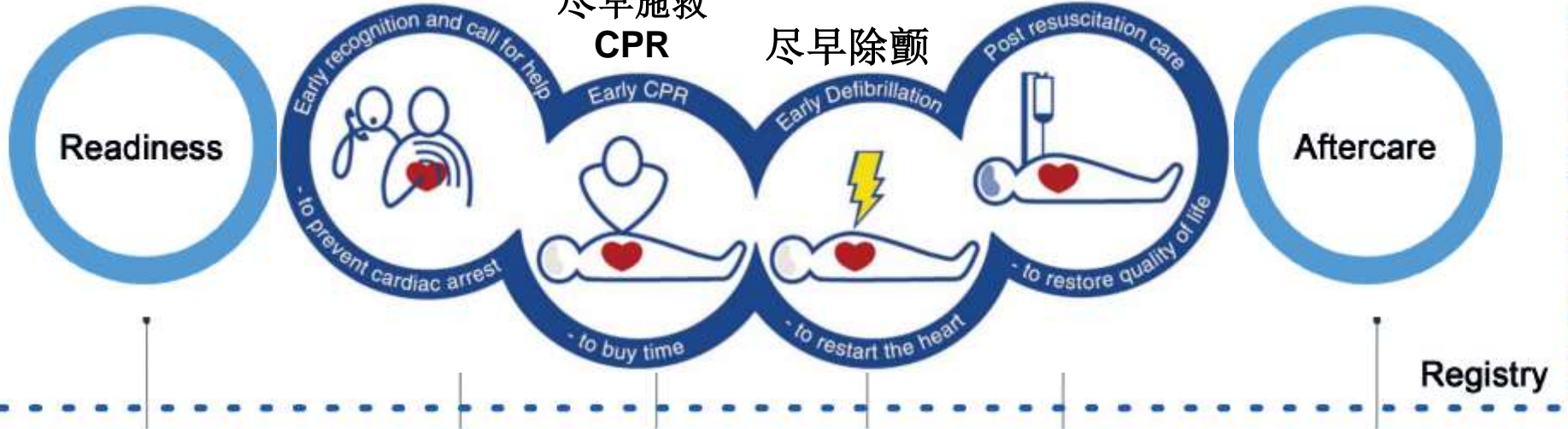
# Chain of Survival

尽早认知  
和求救

尽早施救  
CPR

尽早除颤

后复苏护  
理治疗



Culture of bystander action.  
Community based training.  
Advanced End of Life decision making

Ambulance Control Centre identifies cardiac arrest.  
Early dispatch.  
Telephone guided CPR

Bystander CPR  
First Responder CPR  
Excellent SAS resuscitation

Bystander Defibrillation  
CFR Defib  
Excellent SAS resuscitation

SAS Advanced Life Support  
Transport to appropriate care  
Standardised, cardio-cerebral resuscitation

Recognition of the impact of OHCA on survivors and their families  
Recognition of needs and offer of Rehabilitation



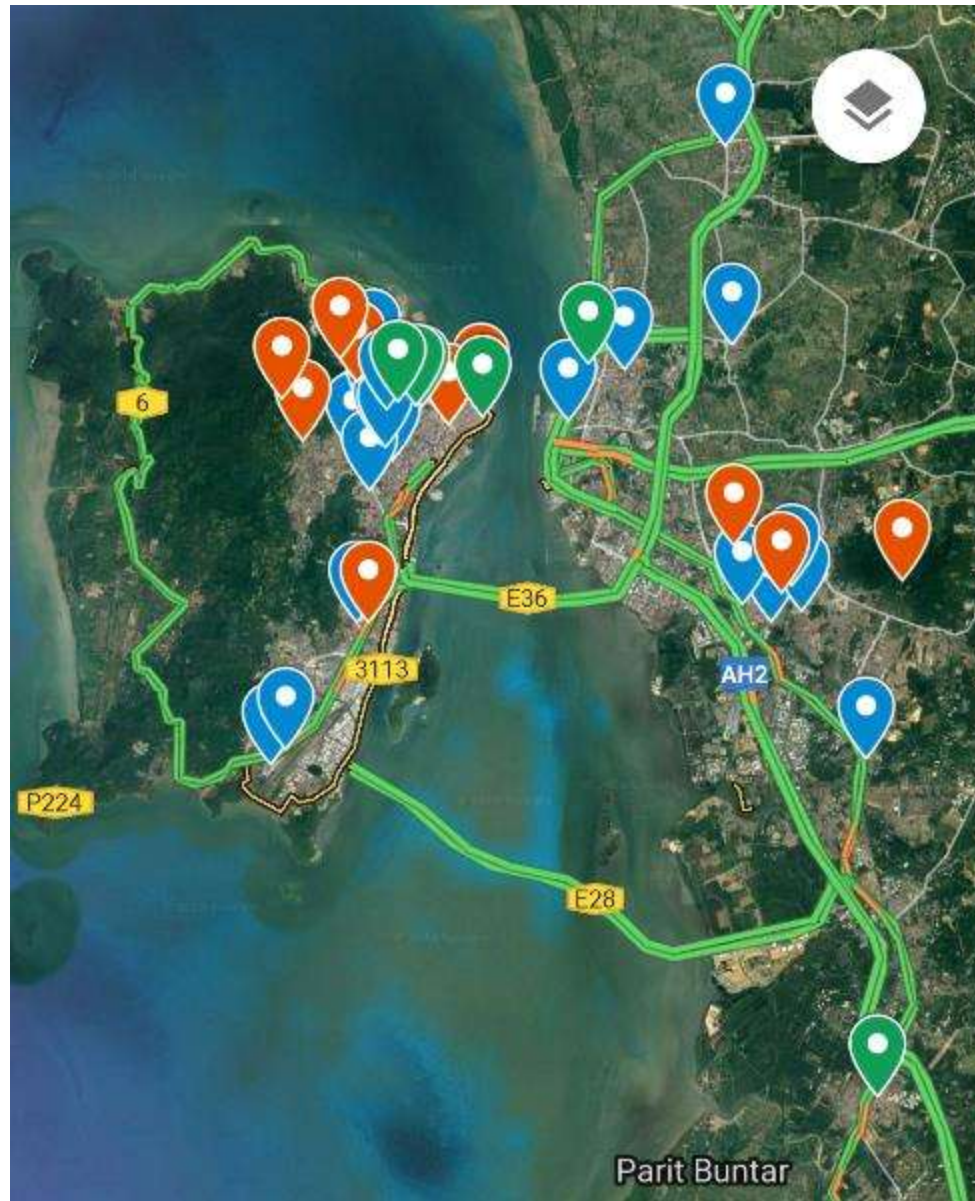




**And Use AED!**



Public access AED in Penang    AED di Pulau Pinang



## Program Heart-Safe Penang

- MBPP Pusat Bayaran Setempat
- KOMTAR (Lv 3)
- Kafeteria Taman Bandaraya
- Taman Botani Guard Post
- Bukit Bendera (Stesen Bawah)
- Bukit Bendera (Stesen Atas)
- Terminal Bas Eskpres Sg. Nibong
- Cherok Tekun (BM)
- Kompleks Sukan Jalan Betik
- Lobi Bangunan MPSP

## Lain-lain Tempat

- SJAM Penang (HQ)
- Bulan Sabit Merah (HQ)
- LTA Penang (Kaunter Informasi)
- LTA Penang (Pintu Ketibaan)
- Penang Medical College
- Gereja Holy Name of Mary (Permatang Tinggi)
- Buddhist Tzu-Chi Kindergarten
- Buddhist Tzu-Chi Dialysis Center
- Buddhist Tzu-Chi Kindergarten (Nb Tebal)
- Buddhist Tzu-Chi Merits Society Malaysia
- Jing-Si Books & Café (B'woth)
- Jing-Si Book & Café (Pg)



## Sekolah

1. SMJK Chung Ling B'worth
2. SMJK Chung Ling
3. SMJK Perempuan China
4. SMJK Chung Hwa Confucian
5. SMJK Phor Tay
6. SMJK Jit Sin
7. SMJK Union
8. SMJK Heng Ee
9. SM Han Chiang (Persendirian)
10. SRJK Kai Chee
11. SRJK Beng Teik
12. SRJK Pei Yu
13. SRJK Chung Hwa Pusat
14. SRJK Keow Kuang
15. SRJK Peng Bin
16. SRJK Chung Shan
17. SRJK Han Chiang
18. SRJK Han Bin



# **How to perform CPR & AED?**



# Follow sequence D.R.S.A.B.C.D

- **D**anger
- **R**esponse
- **S**hout for **HELP**
- **A**irway
- **B**reathing
- **C**irculation
- **D**efibrillation





# DRS ABCD ACTION PLAN

## D

### Check for DANGER

Ensure the area is safe for yourself, others and the victim



SAFETY FIRST

确保自身，伤者和他人的安全

## R

### Check for RESPONSE

- Tap on both shoulders
- "Hello, hello, are you OK?"



拍肩膀检查伤者有无意识

## S

### SHOUT for HELP

- Shout for help:
- "You call 999!" for ambulance
  - "You get an AED!"



若无反应，  
大喊救命！  
派人拨打紧999  
叫救护车和去拿  
AED



**A**

## Open AIRWAY

“head tilt chin lift”  
to open airway



打开伤者呼吸气道。  
用双手把伤者头部抬高

**B**

## Check for BREATHING

- Look at chest rise/ expansion
- If no breathing / abnormal breathing / gasping, start CPR



检查是否呼吸正常。

把头靠近伤者，  
耳听鼻口，眼看胸膛。

如不正常或没呼吸，马上施救  
**CPR**

C

## Commence CPR

Start 30 chest compressions followed by 2 rescue breaths (compressions only if unwilling to give rescue breaths)

- 100-120 compressions / min
- Push hard and fast. 5-6cm depth
- Ensure full chest recoil after each compression



握紧手掌，放在伤者胸膻中间。

手肘拉直，以腰背部发力，推压胸膻。

推压期间手掌不可离开胸膻

### 心肺复苏术（2分钟持续重复）

**30下胸膻推压：2次人工呼吸**  
（如不方便给予人工呼吸，持续做胸膻推压即可）

### 有效的胸膻推压：

- ✓速度 = 1分钟100至120下
- ✓快速和出力。深度 = 5 - 6cm
- ✓确保每一下推压后，让胸膻回弹恢复原本位置



D

## Attach DEFIBRILLATOR

- Attach AED immediately
- Ensure chest dry. Excess hair removed.
- Follow AED's instructions
- **DO NOT TOUCH** victim when AED analyze or deliver SHOCK
- Start CPR immediately when instructed by AED



Continue CPR until victim responds / normal breathing returns / ambulance arrives

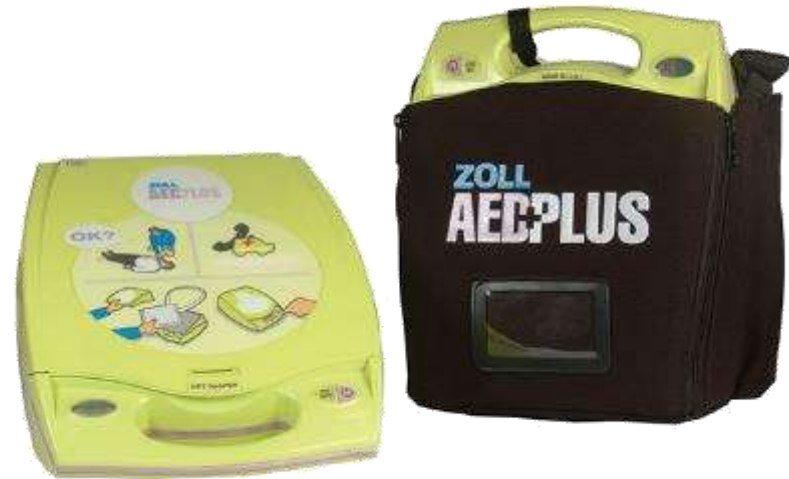
### 当心脏除颤器到达时:

1. 马上启开除颤器
2. 打开伤者衣服
3. 确保胸膛干燥，剃掉过盛的体毛。
4. 将除颤器电击胶贴粘在胸膛上。
5. 根据除颤器的指示
6. 当除颤器正在验证心跳状况或允许输送电击时，确保任何人都不可触碰伤者
7. 当除颤器指示做CPR时，马上开始心肺复苏术，直到下一次的指示
8. 继续心肺复苏术直到：伤者恢复意识，恢复正常呼吸，或急救人员到达



# Automated External Defibrillator

## 自动体外心脏电除颤



# Defibrillation

## When AED arrives

Open the AED's lid and turn it **ON**



马上启开除颤器



## Remove Clothing

Make sure **Chest** is **Dry**,  
excess hair is removed

打开伤者衣服

确保**胸膛**干燥，**剃掉**过盛的**体毛**



### Rescue accessory kit:

- Scissors 剪刀
- Blade 剃刀
- Towel 毛巾
- Wet wipe/sanitizer 消毒纸巾
- Face shield 人工呼吸面膜
- Gloves 手套



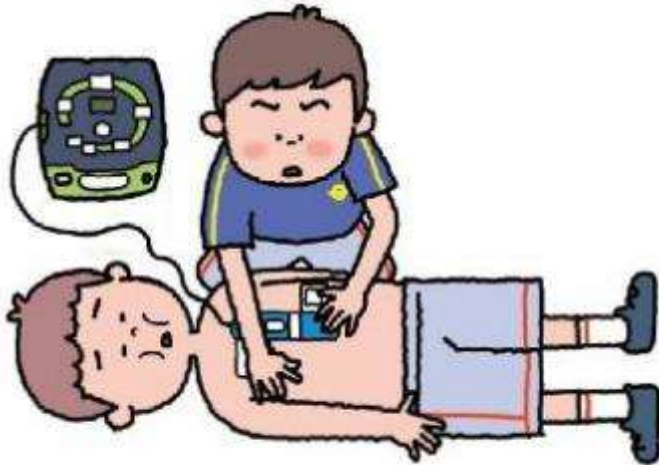


Attach electrode pads on victim's chest.  
Remove protective backing from pads.

1.

Place the pad onto the chest as per the diagram shown  
根据图片显示将电击胶贴放在胸膛

Perform chest compression on "+"  
推压胸膛的位置

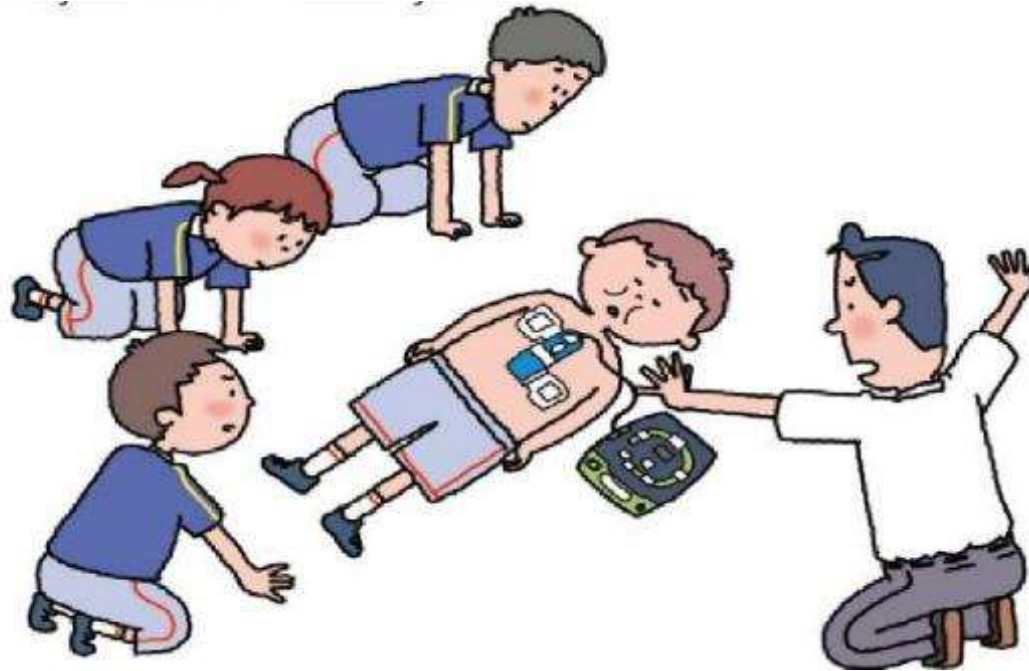


2 & 3.

Pull the protective sheet following the arrow direction and then attach the pad on to the chest  
将电击胶贴保护膜往箭头方向拉开，然后把胶贴黏上胸膛

Analysing rhythm, **DO NOT TOUCH** victim !

当除颤器正在验证心跳状况时  
确保任何人都不可触碰伤者！！！！



## Shock indicated

If AED advises a shock, **Press Shock Button**  
then follow AED instructions



当除颤器允许输送电击时，按电击按钮之前  
**确保任何人都不可触碰伤者！！！！**

电击输送过后，继续根据除颤器的指示

## No Shock advise

If AED does not advise a shock, **Start CPR** immediately.

*AED will re-analyse victim's heart after every 2 mins.*



当除颤器不允许输送电击，**马上开始心肺复苏术**，  
直到下一次的指示  
除颤器将每两分钟检查伤者心跳状况

Continue CPR & follow AED instructions until ambulance arrive or victim regains consciousness



继续心肺复苏术直到  
伤者恢复意识，恢复正常呼吸，或急救人员到达现场





# Liability & Cost

- There are no reported lawsuits involving use of an AED. All suits revolve around the failure to have or use of AED.
- AED cannot shock anyone who does not need to be shocked.
- 未前还没有任何涉及使用**AED**的诉讼。所有的诉讼都属未能具备或使用**AED**。
- **AED**不会随便电击不需要除颤的伤者





# **When to stop CPR**

- **Casualty revived with sign of life**
  - **Coughing, breathing & movement**
- **Hand over to ambulance personal / doctor.**
- **Someone take over from you**
- **Rescuer (you) are too tired to continue**



# Remember!!!

- **Minimal Interruptions** to chest Compressions ( **not more than 10 sec** )
- **Avoid hyperventilation**
- **Vomit** – turn to lateral
- **Dentures** – don't remove except it's loose or ill-fitting
- Use of Personal Protective Equipment (**PPE**)
- **Chest Compression Only CPR**



# **RECOVERY POSITION**



# RECOVERY POSITION

- To Maintain Open Airway, prevent tongue from obstructing airway
- Drain out the vomitus
- Comfortable position



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PENANG



# RECOVERY POSITION

- Angle the nearer hand
- Make sure that both of the casualty's legs are straight



# RECOVERY POSITION

- Place the further hand next to cheek



# RECOVERY POSITION

- Bend the further leg



# RECOVERY POSITION

- Turn patient towards you
- Make sure the upper leg is bent at right angle
- Maintain open airway

4





# ST. JOHN AMBULANCE

## OF MALAYSIA

