



CARDIOVASCULAR
SYSTEM DISEASES,
BLS, CPR



Dr Maxim Kurbanov

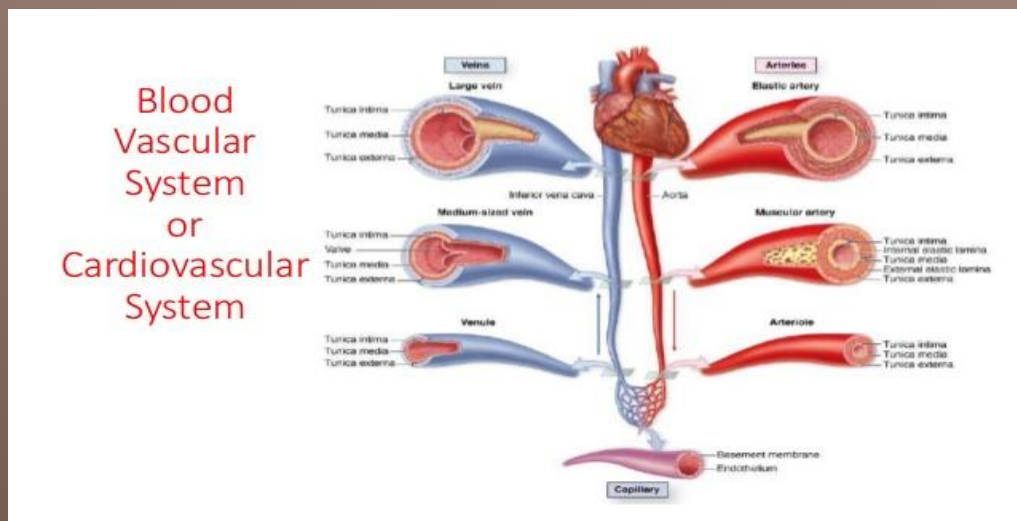
“MERCURY” FIRST AID TRAINING



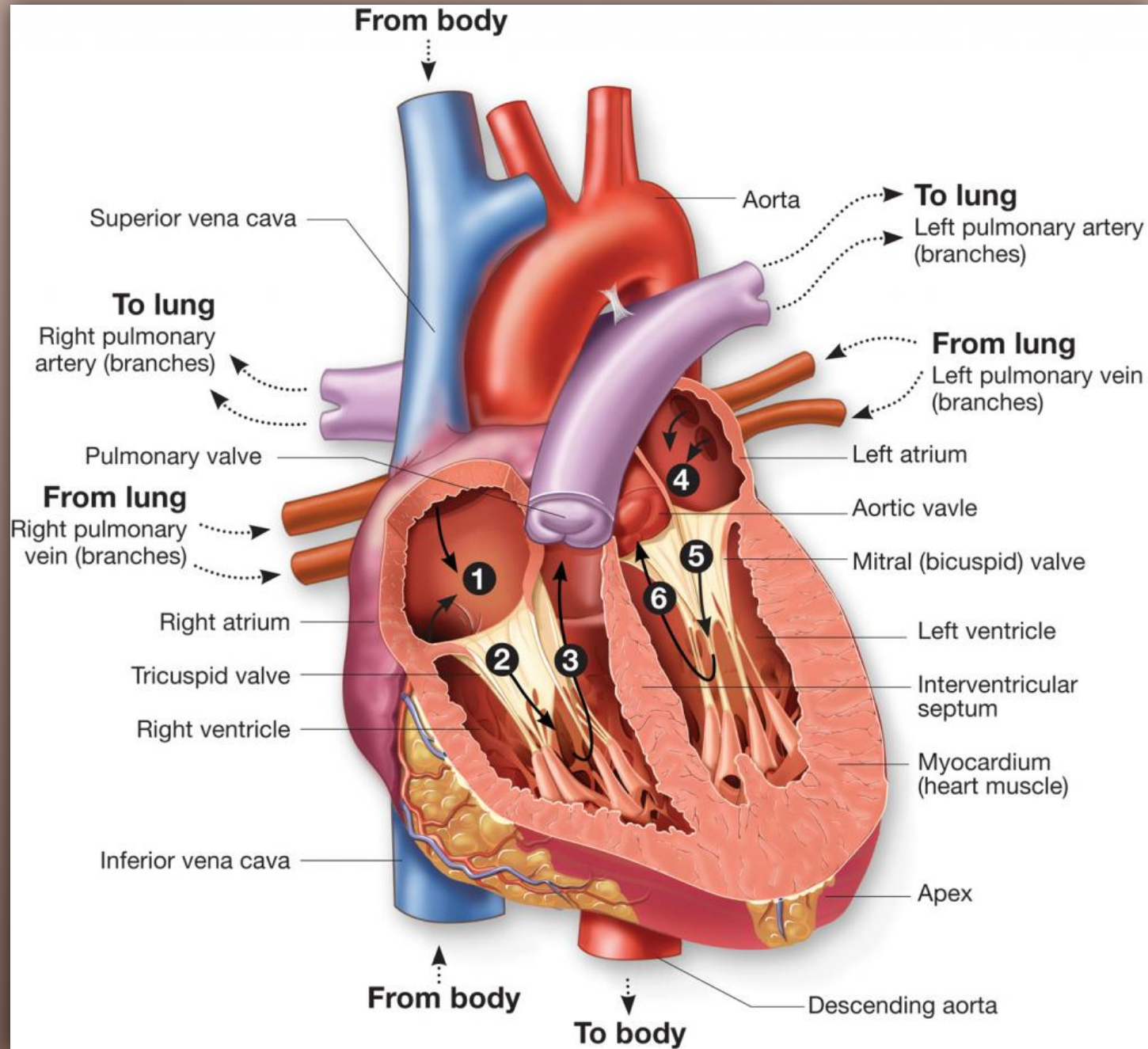
WELCOME TO OUR CLASS

A diagram of an ECG wave with cartoon characters representing the P, QRS, and ST segments. The P wave is a pink character saying "OK, Here I Come!". The QRS complex is a yellow lightning bolt character saying "I Got to Get From The Atrium To Ventricles". The ST segment is a purple character saying "Make'n It Happen... Ventricles Contract." and "I Think I'll Take A Little Rest." The T wave is a red character saying "Ready To Go Again!".

To Calculate Heart Rate:
Count the number of "R" waves in 6 seconds.
(6 large blocks X's 10 = 1 min rate)

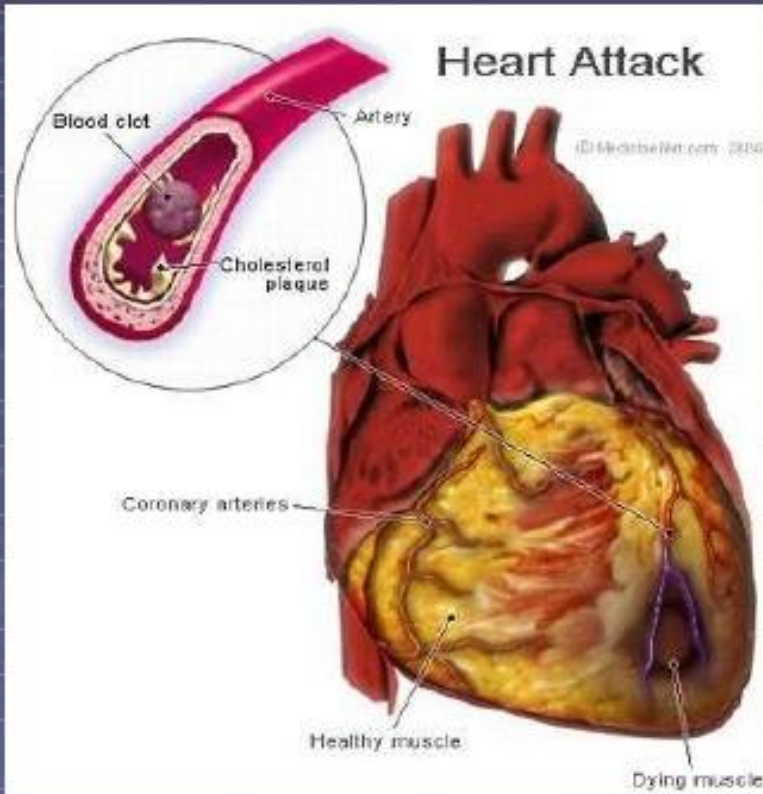
A diagram of an ECG grid showing a large square representing 20 seconds and a small square representing 0.4 seconds. The vertical axis is labeled "VOLTAGE" and the horizontal axis is labeled "TIME IN SECONDS".

TUTORIALS FOR CVD TRAINING



HEART ANATOMY

Cardiovascular System Diseases - Heart

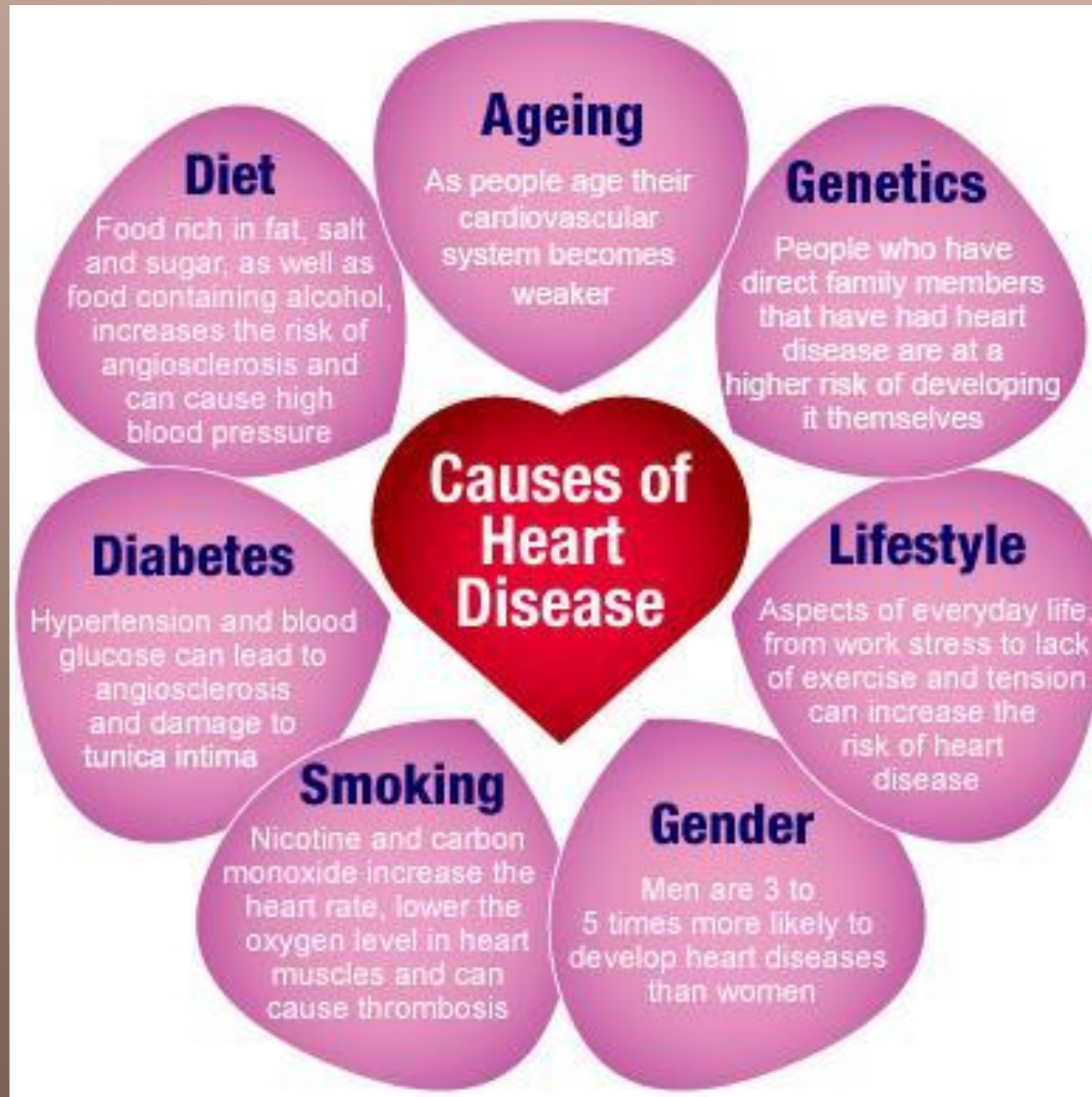


- Angina Pectoris
- Arrhythmia
- Bundle Branch Block
- Cardiac Arrest
- CardioMyopathy
- Congenital Septal Defect
- Congestive Heart Failure
- Coronary Artery Disease
- Endocarditis
- Fibrillation
- Flutter
- Heart Valve Prolapse
- Heart Valve Stenosis
- Myocardial Infarction - Heart Attack
- Myocarditis
- Pericarditis
- Tetralogy of Fallot

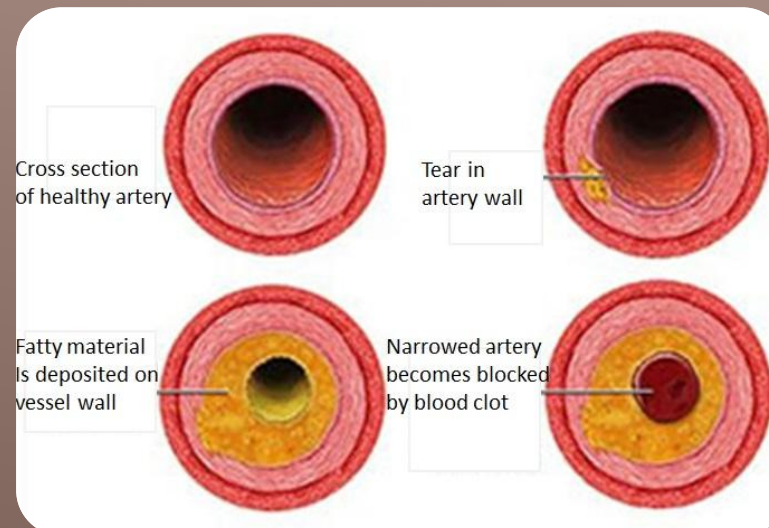
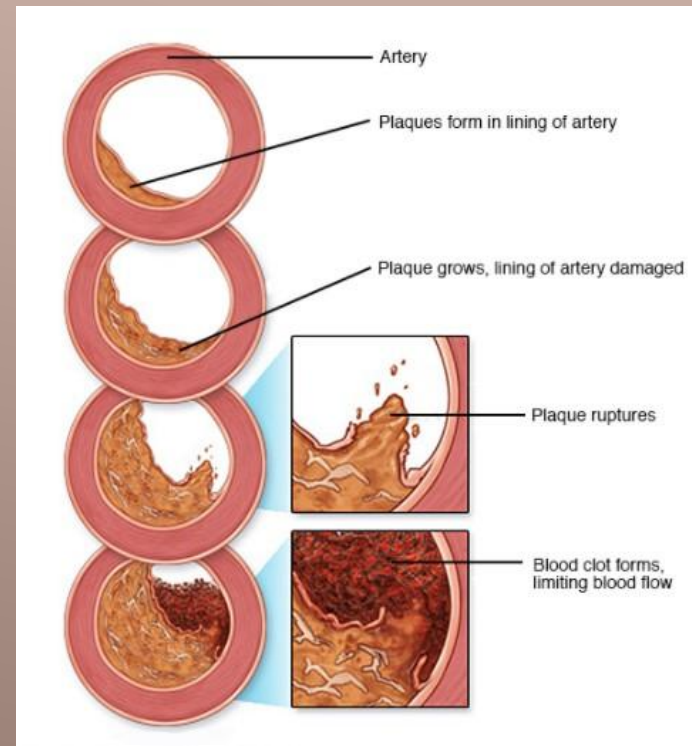
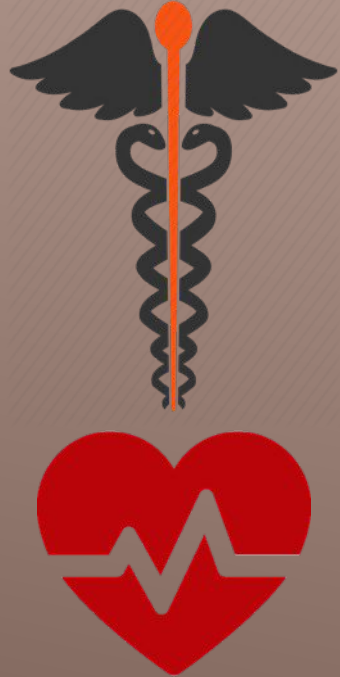


CARDIOVASCULAR SYSTEM DISEASES





MAIN CAUSES OF CVS DISEASES

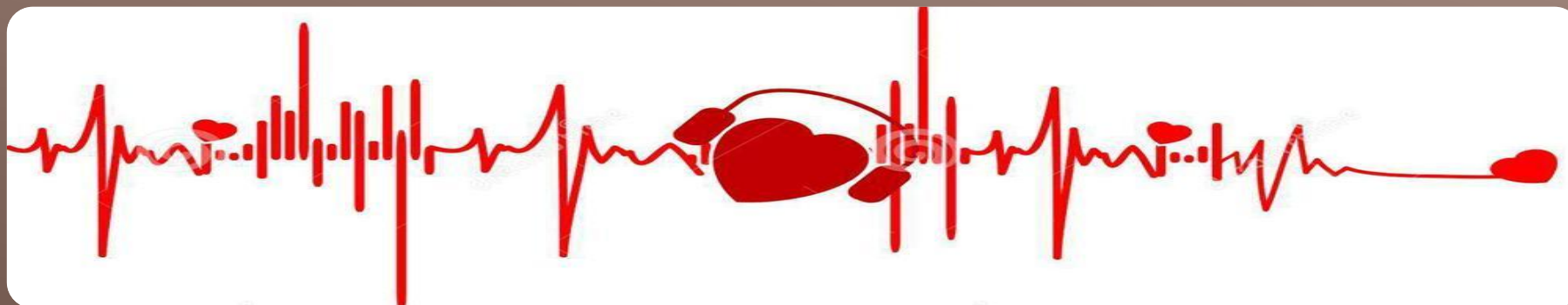


HEART MUSCLE NECROSIS AFTER PROLONGED ISCHEMIA

TIME FOR THEORY



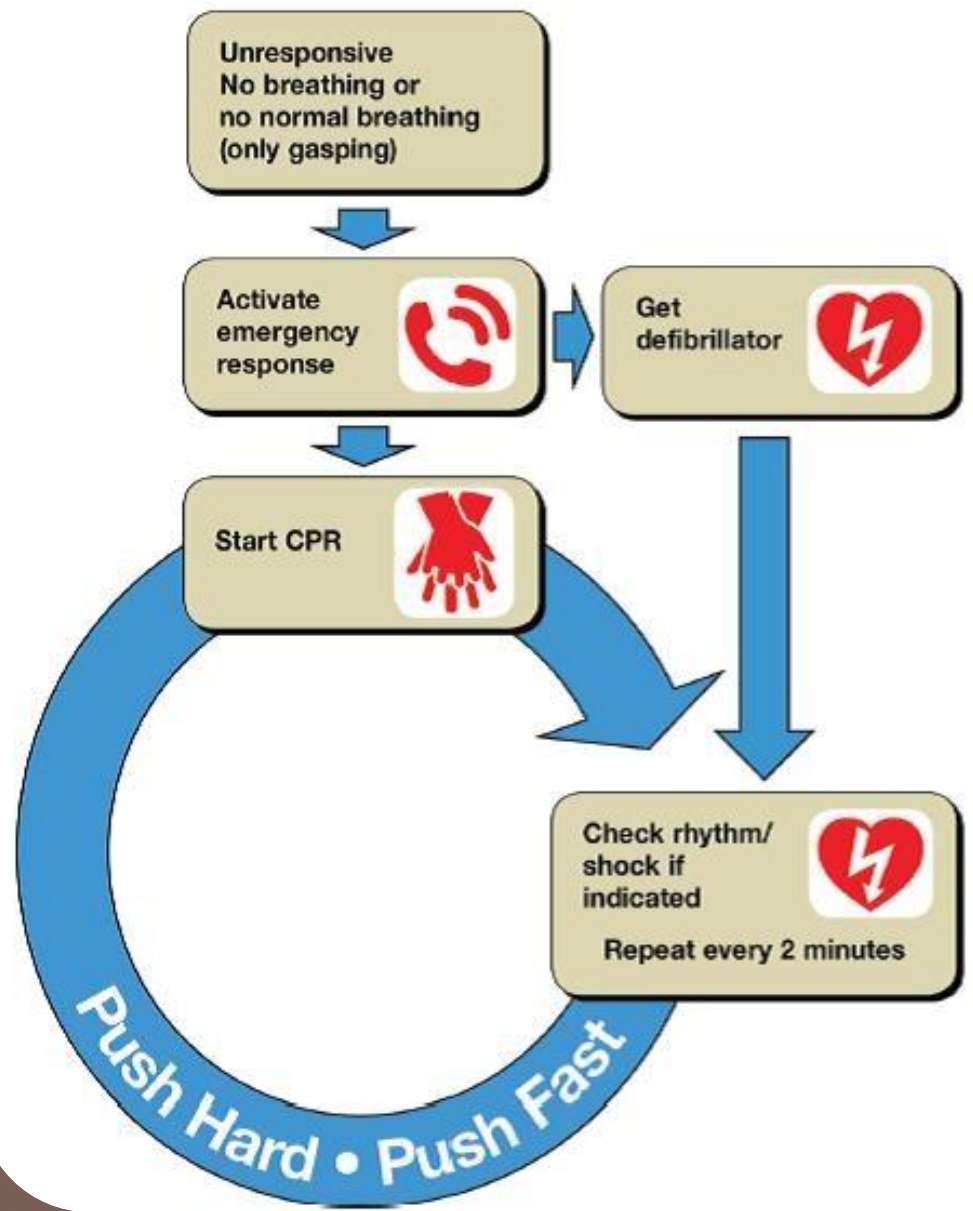
LEARNING TIME




TIME FOR PRACTICE




LEARNING TOGETHER




CPR is as easy as
C-A-B




C
Compressions
Push hard and fast
on the center of
the victim's chest



A
Airway
Tilt the victim's head
back and lift the chin
to open the airway



B
Breathing
Give mouth-to-mouth
rescue breaths

American Heart Association 
Learn and Live

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BLS AND CPR



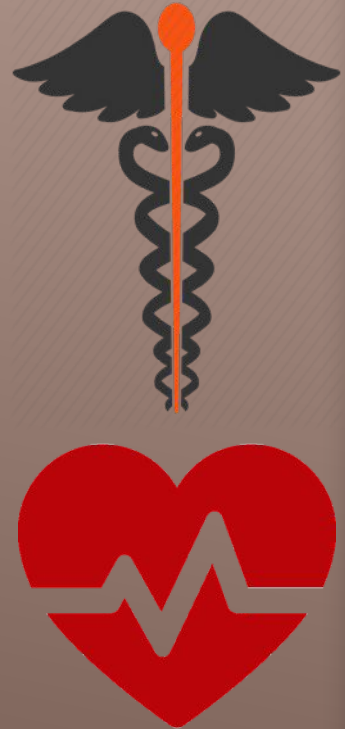
REFRESHING OF BLS ALGORYTHM



WHY ECG IS IMPORTANT?

Circulatory System Health

- You can prevent cardiovascular disease by exercise, eating healthy and NOT SMOKING
- A diet low in saturated fat and cholesterol is important for heart health
- Excess fat and cholesterol builds up on artery walls
- Excess weight gain enlarges the circulatory system, which causes the heart to pump harder





READY TO SAVE LIVES

CPR (Adult) Unresponsive and Not Breathing



1

Check Response

- Tap or squeeze shoulder. Ask loudly, "Are you Okay?" No response?



2

Call for Help!

- Have someone alert EMR and get an AED (Automated External Defibrillator).



3

Check Breathing

- Look quickly at face and chest for normal breathing. Occasional gasps are NOT considered normal



4

Give 30 Chest Compressions

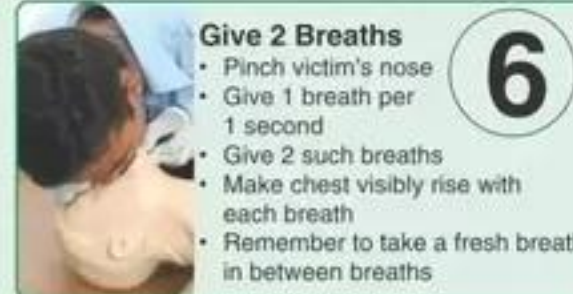
- Place heel of one hand on centre of chest (lower half of breast bone)
- Place heel of second hand on top of first
- Using upper body weight, push hard, at least 2 inches in depth
- Push fast, at the rate of at least 100 times per minute. Allow chest to fully recoil



5

Open Airway

- Tilt-head-lift-chin to open the airway



6

Give 2 Breaths

- Pinch victim's nose
- Give 1 breath per 1 second
- Give 2 such breaths
- Make chest visibly rise with each breath
- Remember to take a fresh breath in between breaths

Repeat Cycles:(Step 4, 5, 6)



Child (1 year to puberty) - CPR

- All steps are the same as for Adult however use one hand for chest compressions as the pressure required for a child is less.
- Use two hands if required
- When two people are available, follow cycles of 15 compressions & 2 rescue breaths. 10 such cycles are to be given in 2 minutes



REMEMBER!



THANK YOU!