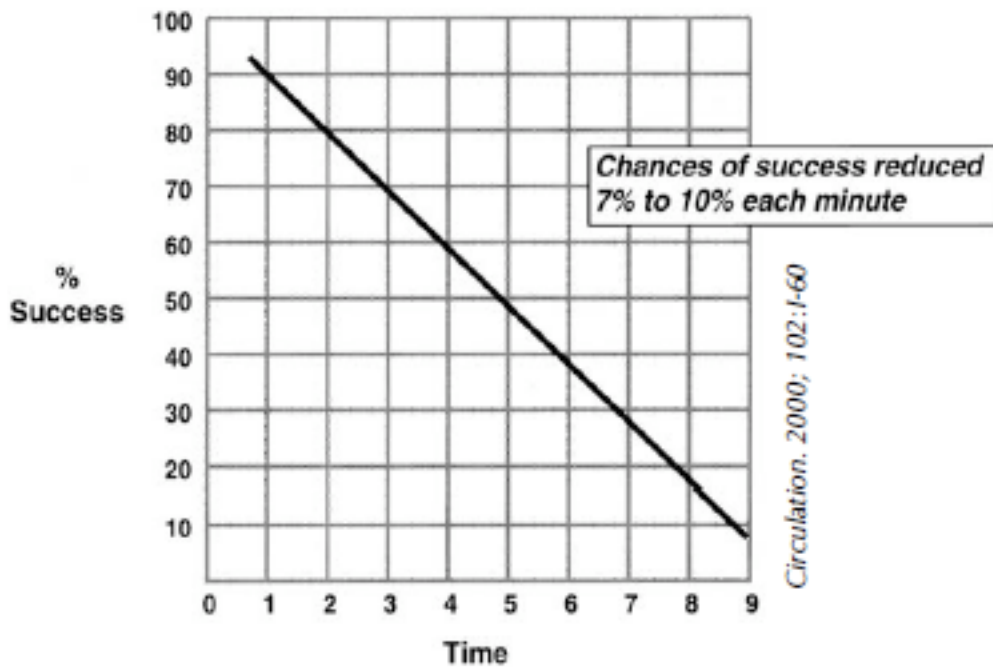


## 2.3 Automatic External Defibrillator (A.E.D)

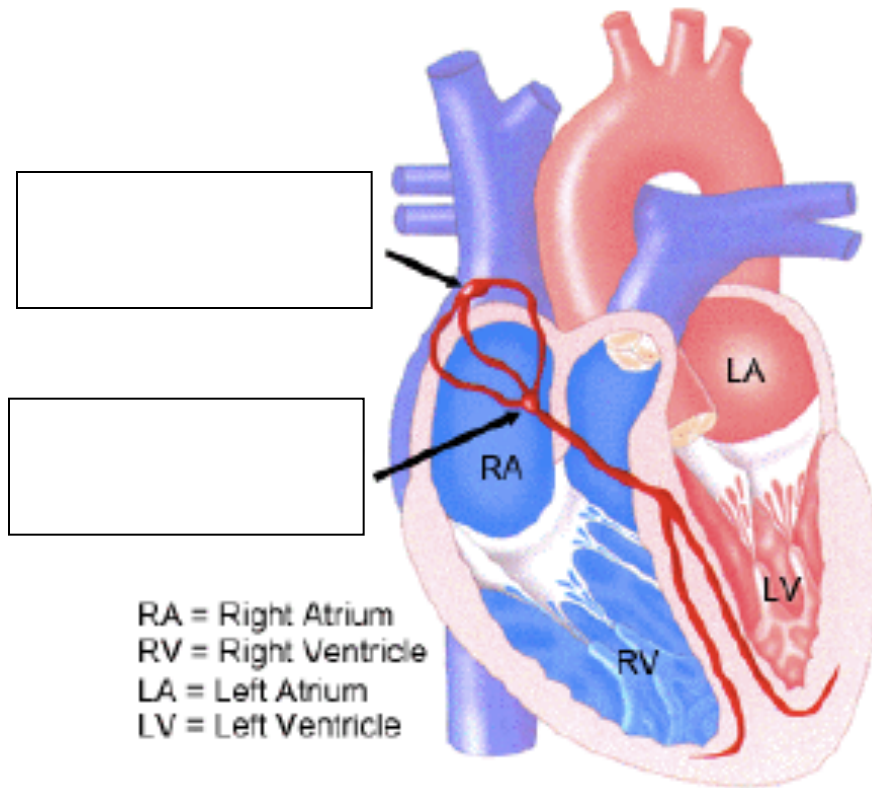
The Chain of Survival



The 10 Minute Window



The Heart



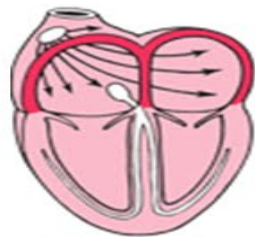
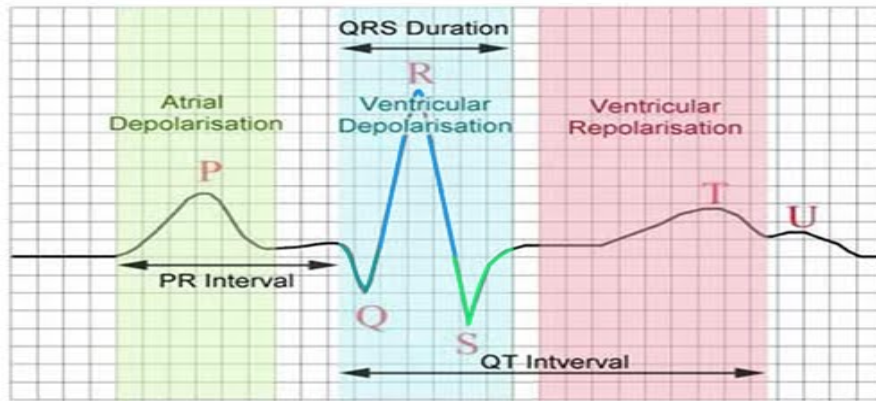
Electrocardiogram (ECG)



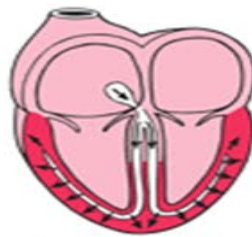
Electrocardiogram (ECG)



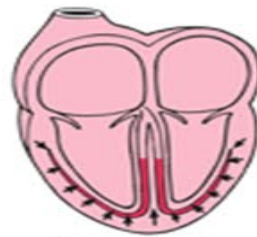
The \_\_\_\_\_ Wave







Activation of the atria



Activation of the ventricles



Recovery wave

Cardiac Rhythm	Electrical Activity	Mechanical Activity	Pulse	Shock
Normal Sinus Rhythm				
Ventricular Fibrillation				
Pulseless Ventricular Tachycardia				
Asystole or Flatline				

### Using an A.E.D.

Does NOT require any training (although it can help)

STEP #1:

STEP #2:

STEP #3:

### Special Considerations

Although the AED is easy to use, there are a few circumstances where the rescuer must exercise caution in order to use the AED safely.

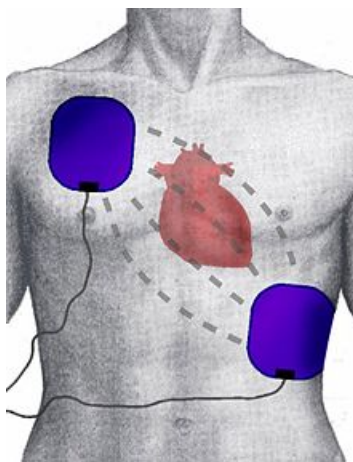
#### Victim Assessment

- Victim must be unresponsive and not breathing or not breathing effectively for AED use to be indicated.
- Ineffective breathing includes breathing with the presence of cyanosis, very slow or very rapid/shallow respirations, agonal breathing (gasping) and absence of breathing.
- Agonal breathing is present in up to 40% of pre-hospital cardiac arrests and is mistaken as a sign of circulation leading to omission of bystander CPR. The breaths are usually more than 10 seconds apart and it can last up to 2-3 minutes. The diaphragm is still receiving intermittent residual impulses from the brain resulting in sporadic gasping breaths.

#### Victim Age

- AEDs can be used on all patients as per the 2010 CPR Guidelines. Although it is recommended that pediatric pads be used on children and infants, adult pads can be used if no other pads are available.
- Child or infant pads cannot be used on adult patients.

#### Electrode Pad Placement (Adult)



The pad that attaches to the right anterior or upper chest should not go over top of the \_\_\_\_\_, \_\_\_\_\_ or \_\_\_\_\_.

The pad that attaches to the lateral or lower chest, wrapping around the rib cage must not be placed on the \_\_\_\_\_. This pad often has a heart symbol on it to help you identify the left side pad.

**Electrode Pad Placement (Child)**



The right side pad attaches to the anterior \_\_\_\_\_ and the left side pad attaches to the \_\_\_\_\_ or posterior chest.

Pediatric pads for children 1-8 years old are recommended, though not required.

**What if?**

<b>The person has a hairy chest</b>	
<b>They were electrocuted</b>	
<b>They are in the water</b>	
<b>They are on a metal surface</b>	
<b>They have oxygen on already</b>	
<b>They are pregnant</b>	
<b>They have a medication patch</b>	
<b>They have a pacemaker or AIDC</b>	
<b>They are in a moving vehicle</b>	
<b>They regurgitate</b>	
<b>They vomit</b>	

AED Flowchart

