How to Save a Life Using…

Continuous Chest Compression (CCC) CPR

What is it?

Automatic External Defibrillator (AED)

How do I use one?

SHARE
Save Hearts in Arizona Registry & Education

The University of Arizona
Sarver Heart Center

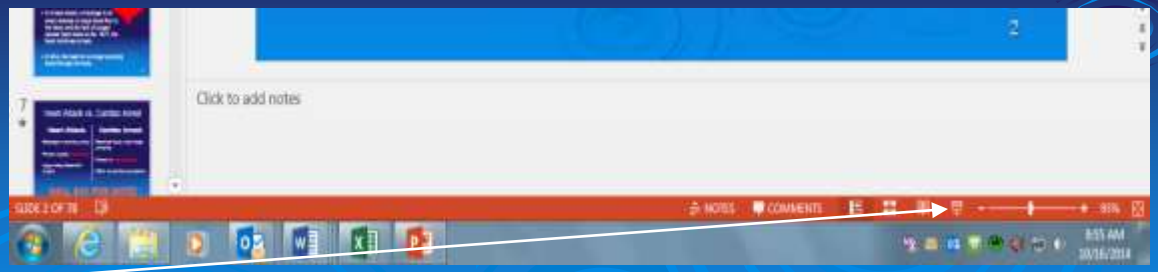
Palm Beach State College

What to Expect?

- Sudden Cardiac Arrest (SCA) is the number 1 cause of premature death in the United States, resulting in more than 365,000 deaths each year.

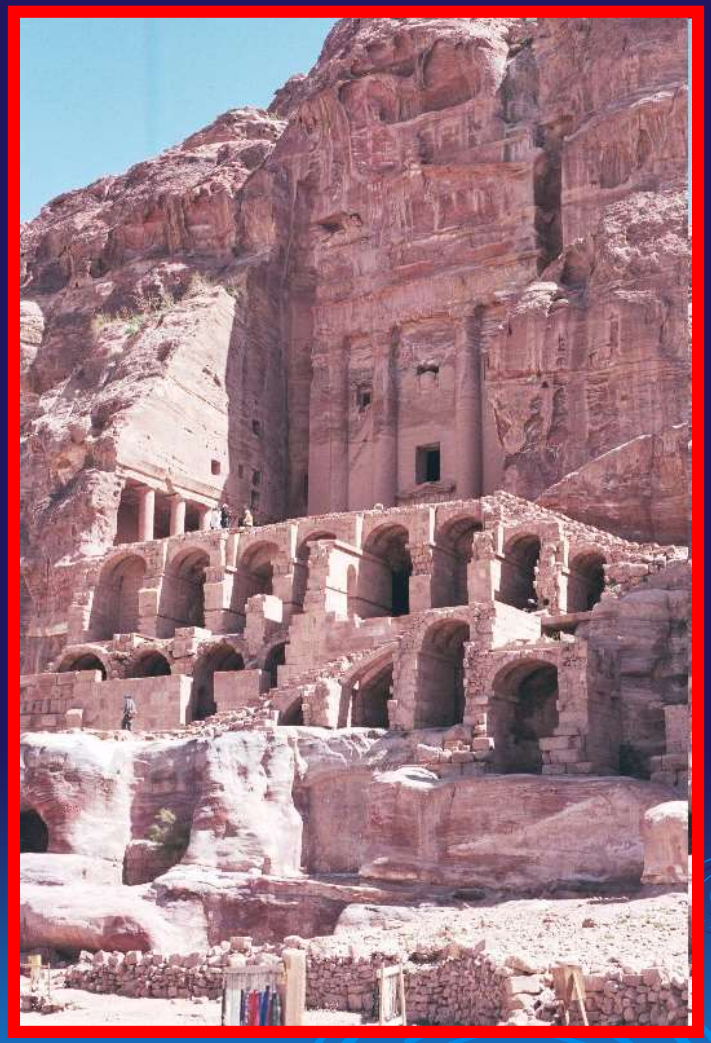
- The intent of this PowerPoint presentation is to show how you can respond to SCA and to help remove any reluctance you may have to take action to help a victim of SCA.

P.S. If you have not already done so, please place the presentation in the Slide Show mode by clicking this icon on the toolbar below. Press Esc to revert.



The Reality of Life…

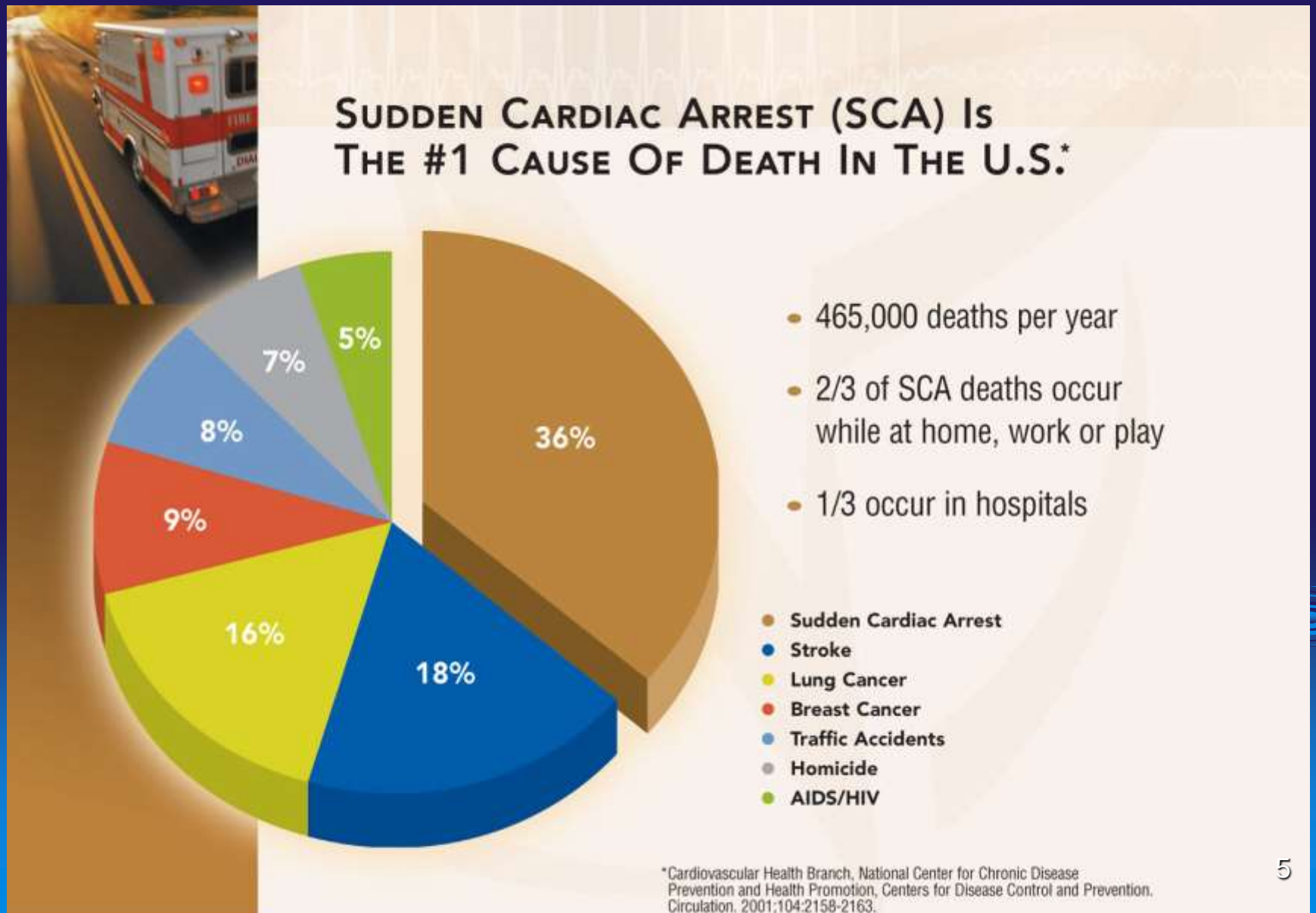
…someday everyone will die!



The Problem…

Premature Death!

Causes of Premature Death



What is Sudden Cardiac Arrest?

- Not the same as a heart attack.

- In a heart attack, a blockage in an artery reduces or stops blood flow to the heart, and the lack of oxygen causes heart tissue to die. BUT, the heart continues to beat.

- In SCA, the heart is no longer pumping blood through the body.

Heart Attack vs. Cardiac Arrest

Heart Attack:

- Blockage in coronary artery
- Person usually ***conscious***
- Upper body discomfort or pain

Cardiac Arrest:

- Electrical issue, heart stops pumping
- Person is ***unconscious***
- Often no previous symptoms

CALL 911 FOR BOTH

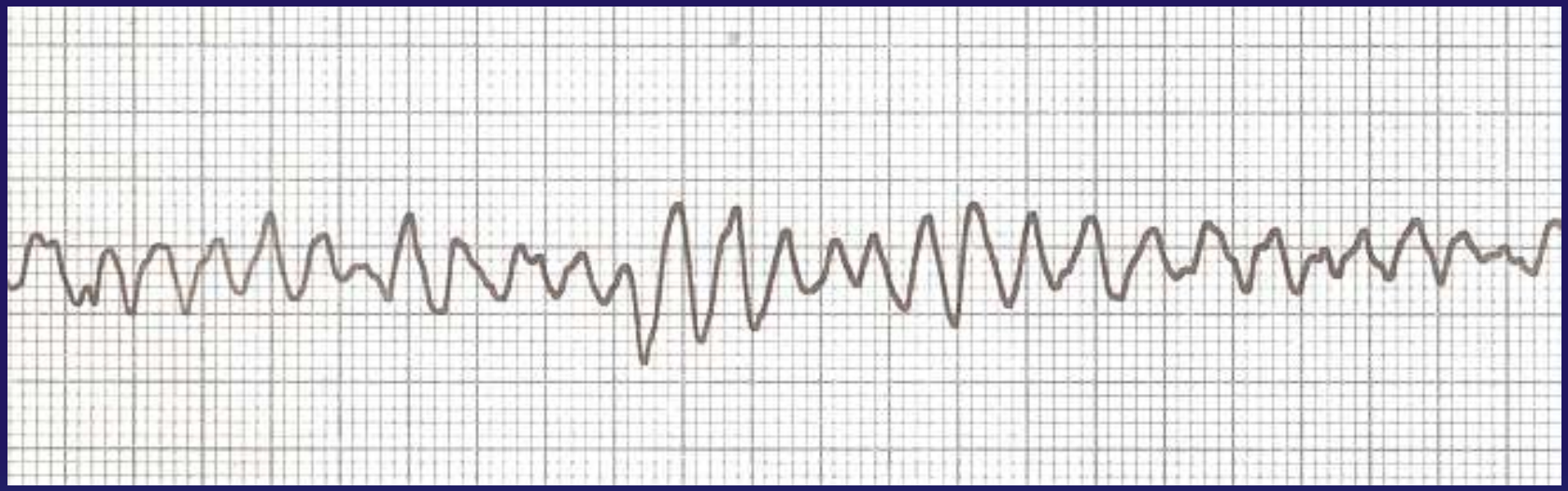
Sudden Cardiac Arrest

- Sudden Cardiac Arrest can occur when the heart's electrical system malfunctions causing rhythms that are rapid (*pulseless ventricular tachycardia*) or chaotic (*ventricular fibrillation*), or both.

- The irregular heart beat causes the heart to suddenly stop beating in a coordinated manner.

This is Normal

This is Not!

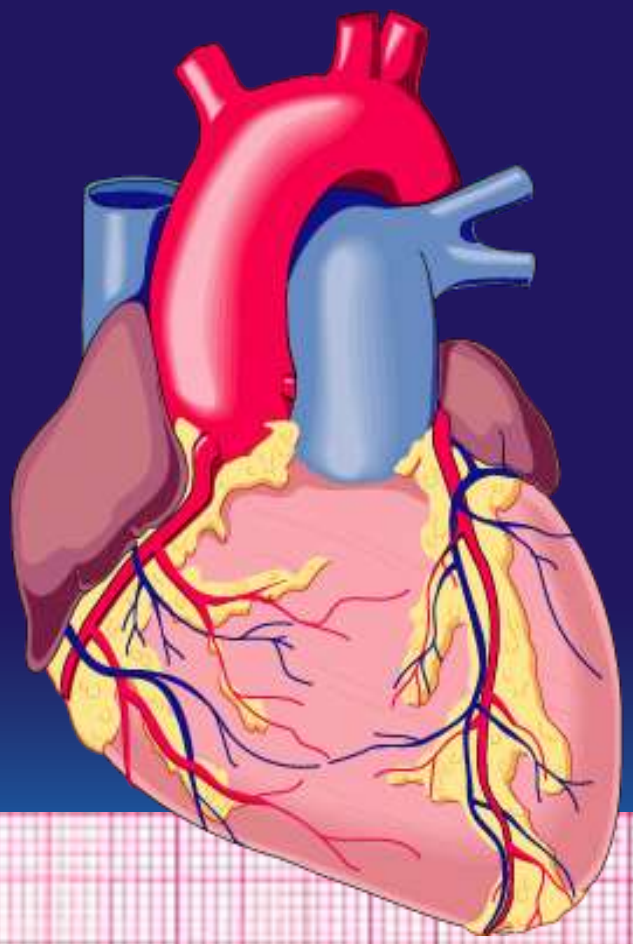


Ventricular Fibrillation

The Ultimate Medical Emergency

Sudden Cardiac Arrest

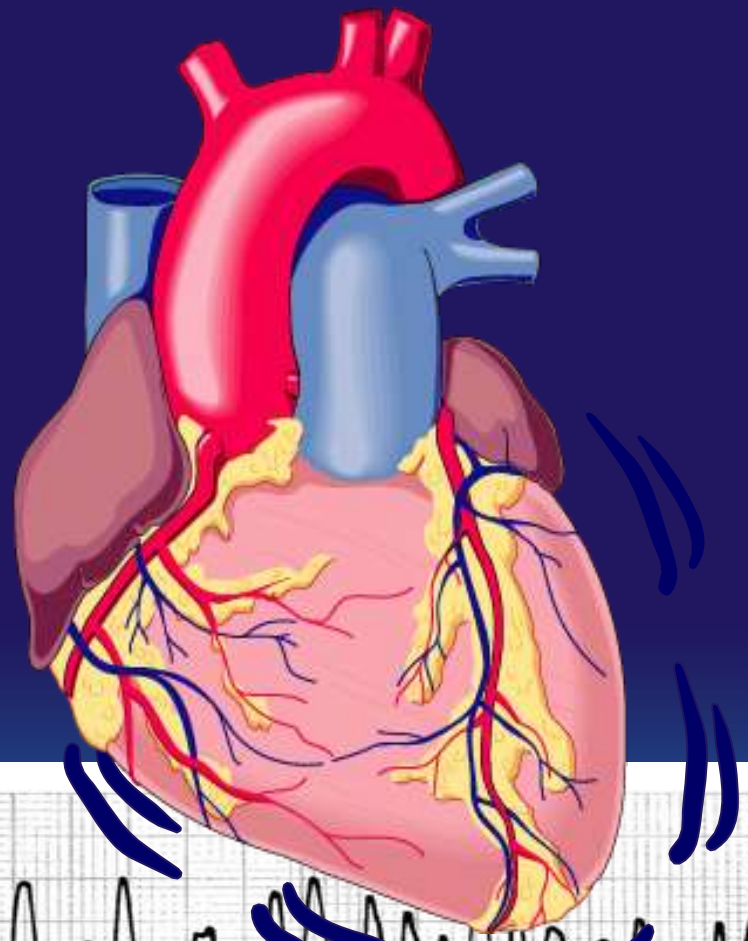
"Electrical Problem # 1"



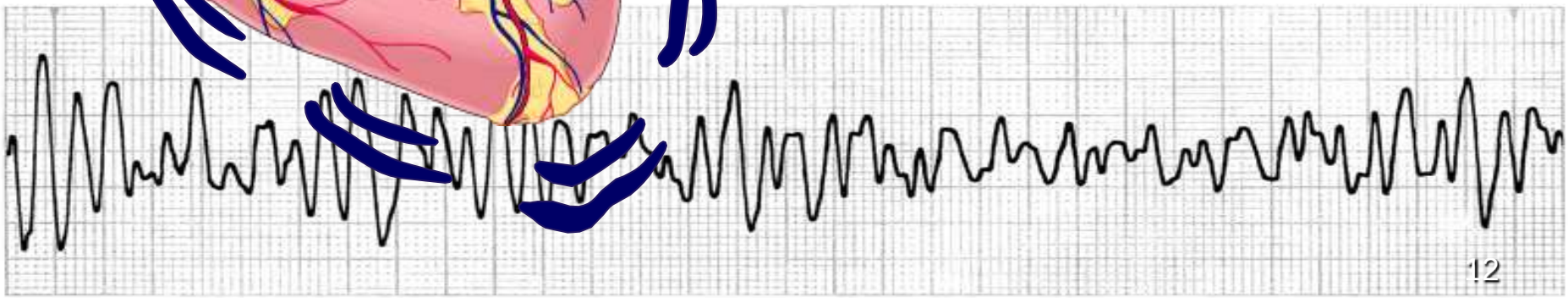
- Standstill (Asystole)

Sudden Cardiac Arrest

"Electrical Problem # 2"



- Ventricular Fibrillation (chaotic "quivering", but NO heartbeat)
- Often follows a heart attack.



Sudden Cardiac Arrest

But sometimes...

…V-Fib can occur totally unrelated to a heart attack.

- Electrocution
- Hypothermia
- Commotio Cordis
- Long Q-T Syndrome
- Lightning Strike
- Drug Overdose
- Near Drowning
- Arrhythmia
- Random Event

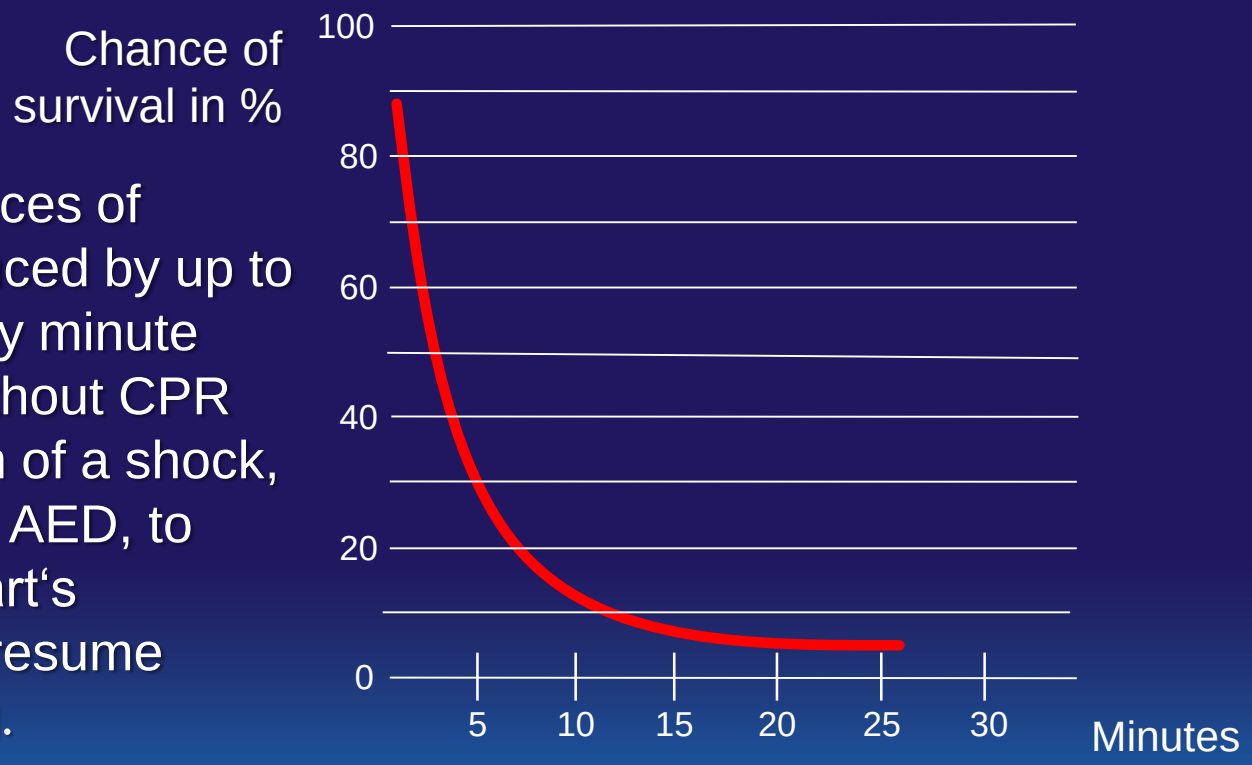
What to Do?

- Without Cardio-Pulmonary Resuscitation (CPR), in conjunction with use of an Automated External Defibrillator (AED), the heart will continue its rapid uncoordinated twitching or fluttering until, due to the lack of oxygenated blood in the heart muscle, the muscle tires and completely stops, with no electrical or mechanical activity.

- Brain death follows.

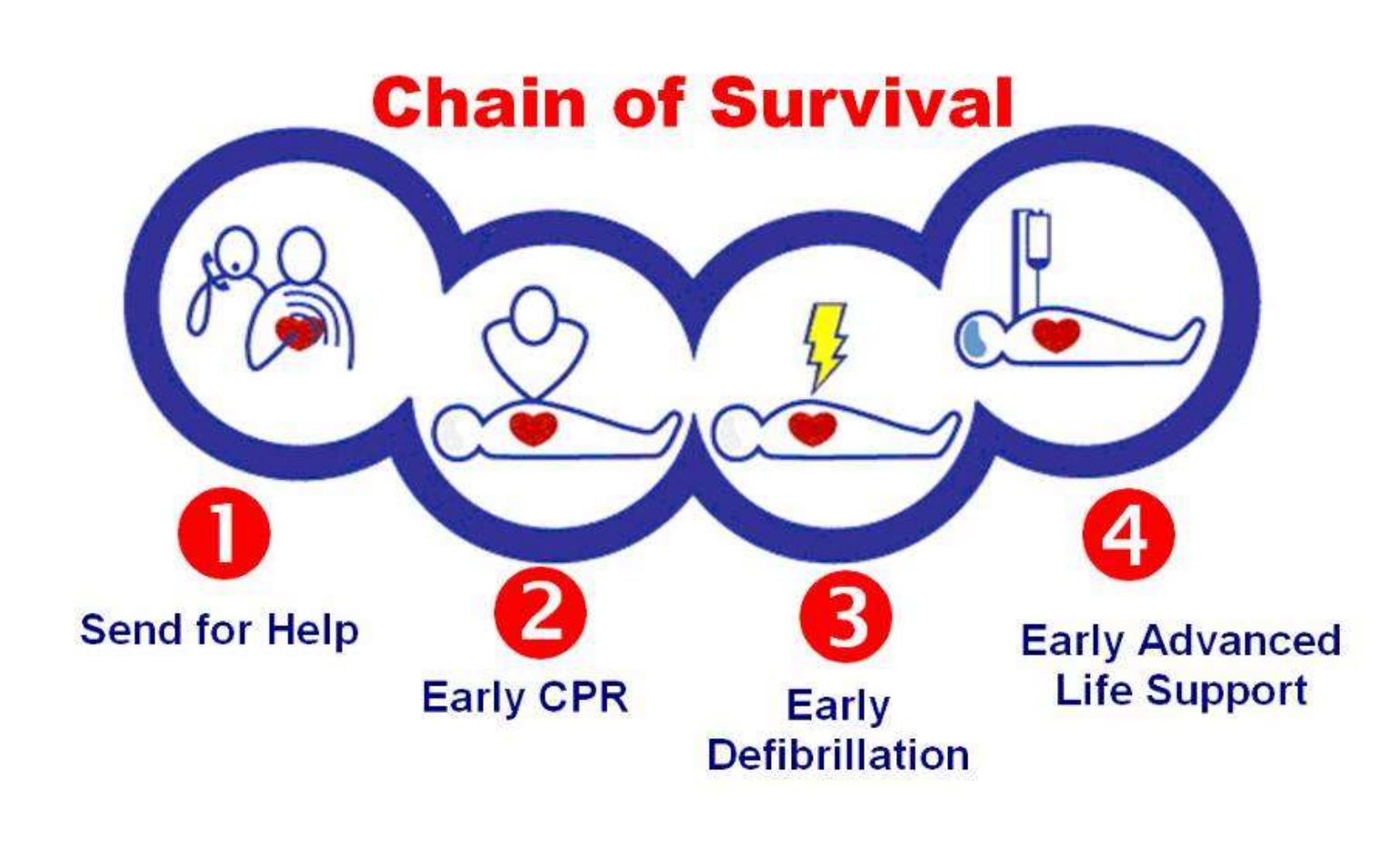
Time is of the Essence!!!

A victim's chances of survival is reduced by up to 10 % with every minute that passes without CPR and application of a shock, provided by an AED, to prompt the heart‘s pacemaker to resume normal beating.



To extend life, immediate on-site action is essential!

Chain of Survival



How to Save A Life

Step One

- If you see some one suddenly fall, or come across someone who is lying down apparently unconscious, shake them and ask (Shout!) “Are you OK?”
- If the person does not respond, command any bystander(s)...
  - YOU, bring the AED!
  - YOU, call 911!

How to Save A Life

Step Two

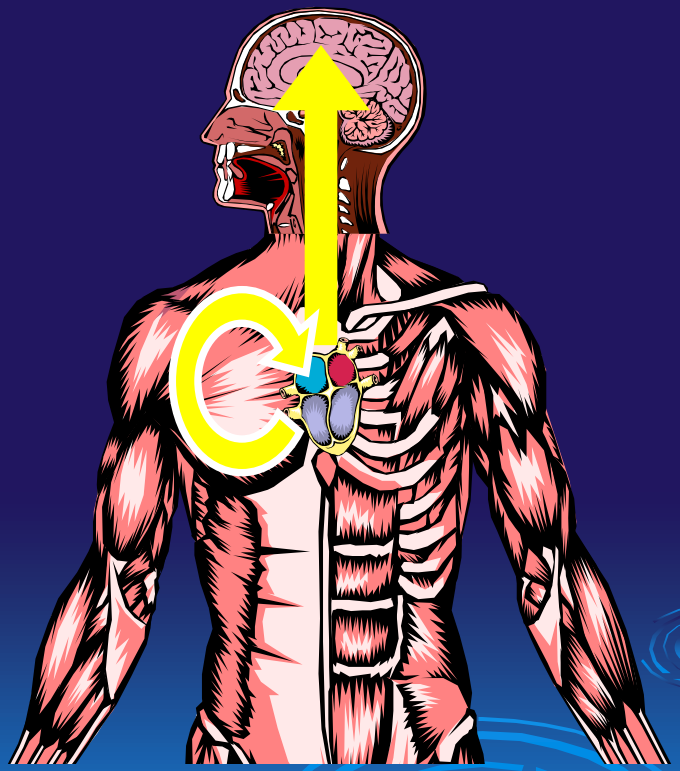
Immediately begin CPR.

- No checking for pulse or signs of circulation—just go straight to CPR!
- CPR dramatically increases survival.

If you call 911 and do nothing until EMS arrives, the victim will most likely die!

Why CPR?

- CPR will not usually stop VF but plays an important part in pushing oxygenated blood to the brain…
- …and heart and prolonging VF so that an AED will be useful.



Why CPR?

- CPR has resuscitated patients with cardiac arrest from ventricular fibrillation.
- CPR can double or triple the victim's survival rate.
- For every passing minute without CPR, rate of surviving drops 7-10%.
- With CPR there is only a 3-4% drop each minute.
- Continuous Chest Compression (CCC) only CPR should be used for SCA victims.

What is Continuous Chest Compression (CCC) Only CPR?

- CCC is a method of resuscitation developed through extensive research at UA Sarver Heart Center for use by layperson bystanders.
- CCC is recommended by the AHA for SCA victims.
- CCC means continuous forceful chest compressions to circulate the victim's blood through their brain and heart.
- No mouth-to-mouth breaths are necessary.

CCC vs. Conventional CPR

- In conventional CPR, chest compressions and rescue breaths are provided at a ratio of 30 compressions to 2 breaths.
- CCC-CPR is what its name implies—continuous chest compressions are given to the victim with no time taken to give rescue breaths through the victim's mouth.

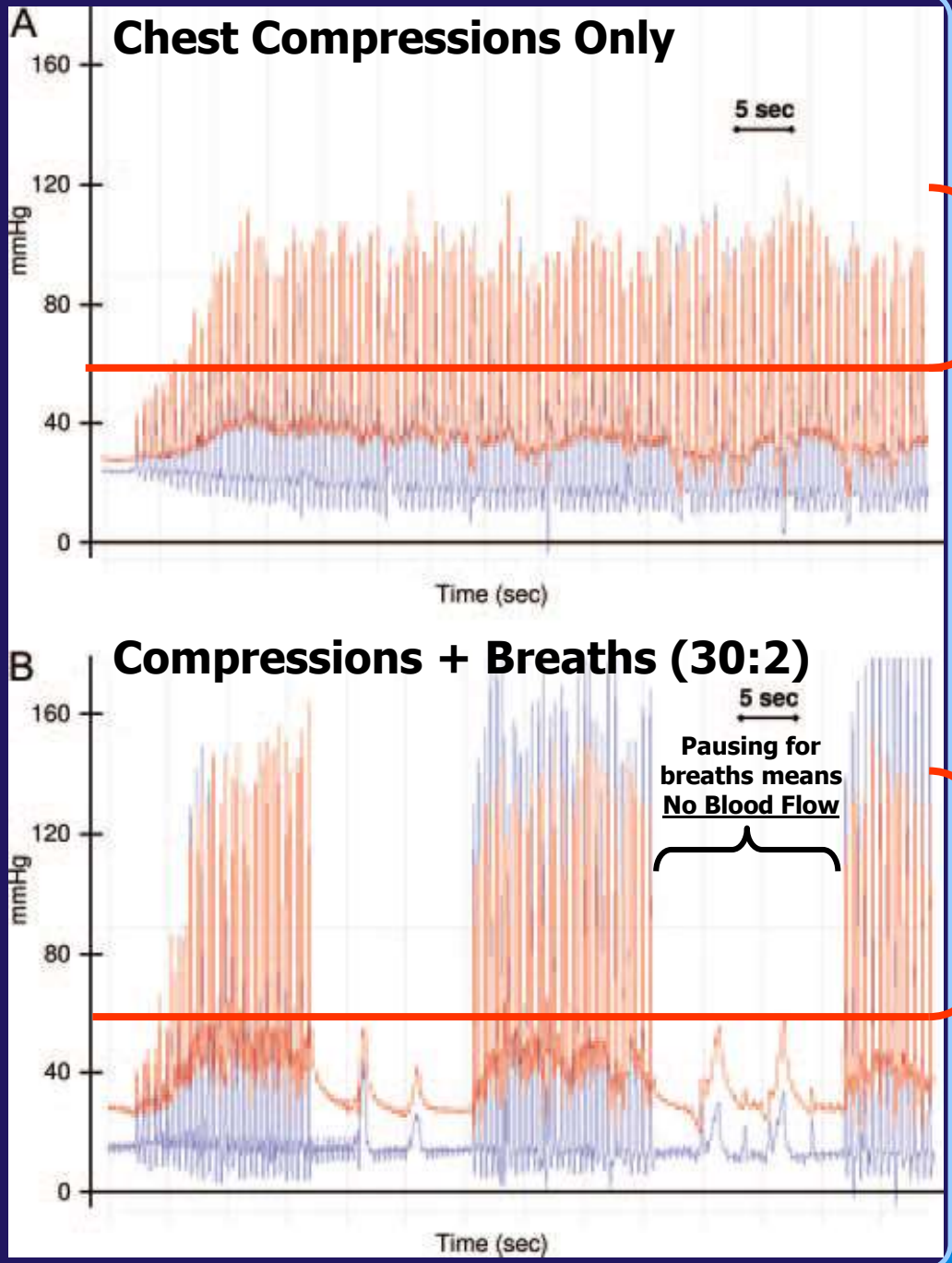
Why isn't Rescue Breathing necessary?

During Cardiac Arrest:

- The lungs are full of air.
- The blood is full of oxygen.
- Circulating the oxygenated blood is the key.

Why might “Rescue Breathing” be harmful in SCA?

- People are less likely to perform CPR in the first place if breaths have to be given.
- It causes interruption of chest compressions; stops blood flow to the brain.
- Increased pressure in the lungs and chest from the rescue breaths decreases blood return to the heart.



Blood Flowing To The Brain

Blood Flowing To The Brain

Ewy GA, et al. Circulation. 2007;116(22):2525-30.

What stops people from doing CPR?

Fear / Concern	Solution
Mouth-to-Mouth (Yuck Factor)	Chest Compressions Only
Harming the Person	Better than Dead
Legal Consequences	Good Samaritan Law
Won’t Perform Properly	Easier to Do
Physically Unable	Do Your Best / Call For Help

When is it OK to use CCC-CPR?

- CCC-CPR is for use on adults (>8 years old) who suddenly collapse and are unconscious and unresponsive. This is the vast majority.
- Conventional (30:2) CPR is still best for victims of drowning and choking, infants and children, drug overdoses and collapse due to breathing problems.
- Attempting any kind of CPR is better than no attempt.

How do I do CCC-CPR?

With the victim on the floor:

1. Kneel beside them.
2. Place the heel of one hand on top of the other.
3. Lock your elbows.
4. Aim for the middle of the chest (on the sternum between the nipples).
5. Push as hard and as fast as you can (try for 100 compressions/minute).
6. Take turns with another person when tired. If two rescuers are available, switch every 200 compressions (~ two minutes) – reduces fatigue.

Chest Compressions: Rate and Depth

100

Compressions per Minute

2 inches

in depth

- After each compression, take all weight off the chest.
- Allows the heart to refill.
- Beat of “Staying Alive!!”

Are they breathing?

- Gasping is a sign of cardiac arrest.
- Majority of people with cardiac arrest gasp.
- **DO NOT** stop chest compressions if they gasp.

Putting it all together…

Please Click: AHA - Hands Only CPR Video

What about CPR for infants and children?

- For infants (less than one year old) and children (age one to 8 years old), if you are alone, you should perform conventional CPR first for two minutes performing five cycles of 30:2 – then call 911.
  - Reason is that most child and infant cardiac arrests are due to asphyxiation (little or no oxygen in their blood), so they will benefit more from immediate CPR.
- For both infants and children, conventional CPR is given at a rate of 30 compressions followed by 2 rescue breaths (100 compressions/minute).
- In all cases, conventional CPR starts with compressions first! Then the breathing.

Infant CPR (< 1 year old)

Position the infant on a firm surface while maintaining the airway. Place two fingers in the middle of the sternum just below (one finger) a line between the nipples.

Use two fingers to compress the chest one-third to one-half its depth at a rate of at least 100 per minute. Allow the sternum to return to its normal position between compressions.

- Place your mouth over the infant's nose and mouth and puff the air in.
- If unsure if it is a child or not, if it can fit on your arm, treat as an infant.

Child CPR (Ages 1 to 8)

Place the heel of one or both hands in the center of the chest, in between the nipples.

Compress the chest one-third to one-half its depth at a rate of at least 100 compressions per minute. Use one hand on chest, with the other hand on forehead for balance and to keep head properly positioned.

- Pinch victim's nose. Give enough breath to make the chest rise.

Other CPR Considerations

- Q. Can you break people's ribs doing CPR?

A. Yes. Studies have shown that this can occur, but that the fractures did not cause any serious bleeding and, thus, mortality. Other the other hand, the chance of surviving SCA is near zero for a victim who does not immediately receive CPR, followed by use of an AED and after care.

- Q. What should I do if I am getting tired from giving chest compressions before more help arrives?

A. Continue to provide hard and fast chest compressions with minimal interruption to the best of your ability. It is hard work, and most people will get tired after only a few minutes of delivering any type of CPR. If someone else is nearby, ask them to take over after about 2 minutes or about 200 compressions. If you are alone, then just do your best.

How to Save A Life

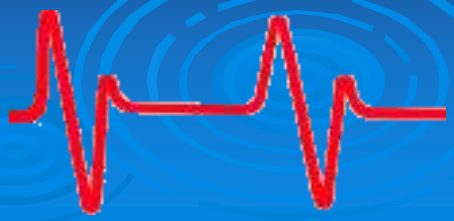
Step Three

Use an AED—Defibrillate.

- The only effective treatment for ventricular fibrillation SCA is a defibrillation shock — an electrical pulse through the heart — which can restore a normal heart rhythm.
- In order to be effective in treating VF, defibrillation treatment must be administered within the first few minutes.
- The AHA guideline for the interval of time from leaving an SCA victim to returning with an AED is 3 minutes.

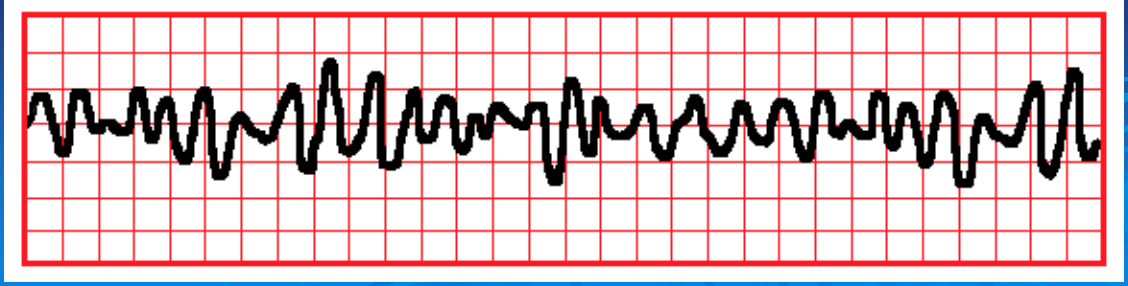
Did you know that your chance of surviving a Ventricular Fibrillation SCA is less than 5% without an AED?

- If used within 5 min, chances of survival is 49-75%.
- Using an AED is safe, simple and highly successful.



Using an AED is safe.

- The AED is a computerized device that will analyze the rate, size and wave shape of human cardiac rhythm.
- It will not shock a properly functioning heart.
- It will not shock a heart that has stopped (VF is not present).
- It will advise shocks ONLY if there is a shockable rhythm.



Using an AED is safe.

- Using an AED is safe for you as well.

- The State of Florida has a “Good Samaritan Act”, a law that protects you from civil liability when you respond to a medical emergency.

Florida Good Samaritan Law

768.13

Good Samaritan Act; immunity from civil liability.—

(1) This act shall be known and cited as the "Good Samaritan Act."
(2)(a) Any person, including those licensed to practice medicine, who gratuitously and in good faith renders emergency care or treatment either in direct response to emergency situations related to and arising out of a public health emergency declared pursuant to s. 381.00315, a state of emergency which has been declared pursuant to s. 252.36 or at the scene of an emergency outside of a hospital, doctor's office, or other place having proper medical equipment, without objection of the injured victim or victims thereof, shall not be held liable for any civil damages as a result of such care or treatment or as a result of any act or failure to act in providing or arranging further medical treatment where the person acts as an ordinary reasonably prudent person would have acted under the same or similar circumstances.
(b)1. Any hospital licensed under chapter 395, any employee of such hospital working in a clinical area within the facility and providing patient care, and any person licensed to practice medicine who in good faith renders medical care or treatment necessitated by a sudden, unexpected situation or occurrence resulting in a serious medical condition demanding immediate medical attention, for which the patient enters the hospital through its emergency room or trauma center, or necessitated by a public health emergency declared pursuant to s. 381.00315 shall not be held liable for any civil damages as a result of such medical care or treatment unless such damages result from providing, or failing to provide, medical care or treatment under circumstances demonstrating a reckless disregard for the consequences so as to affect the life or health of another.
2. The immunity provided by this paragraph does not apply to damages as a result of any act or omission of providing medical care or treatment:
a. Which occurs after the patient is stabilized and is capable of receiving medical treatment as a nonemergency patient, unless surgery is required as a result of the emergency within a reasonable time after the patient is stabilized, in which case the immunity provided by this paragraph applies to any act or omission of providing medical care or treatment which occurs prior to the stabilization of the patient following the surgery; or
b. Unrelated to the original medical emergency.
3. For purposes of this paragraph, "reckless disregard" as it applies to a given health care provider rendering emergency medical services shall be such conduct which a health care provider knew or should have known, at

Using an AED is simple.

Computer technology coaches the user what to do.

Audible Prompts

"Don't touch patient—analyzing."

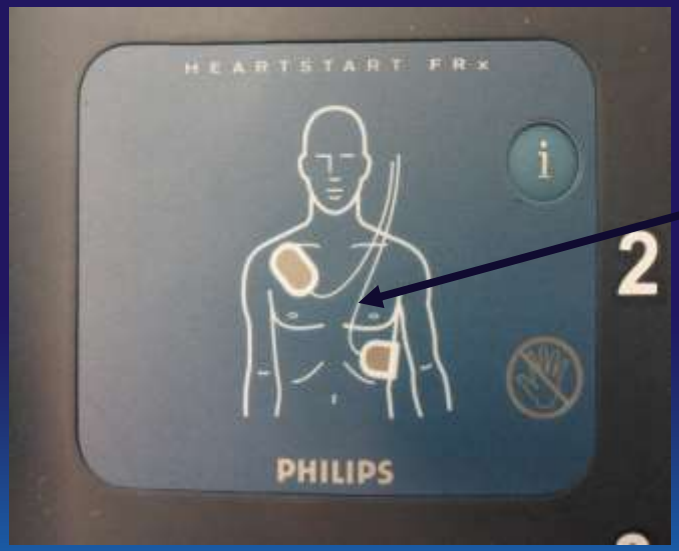
"Shock advised. Don't touch patient. Press flashing shock button."

"No shock advised"
"Start CPR"

Visual Prompts

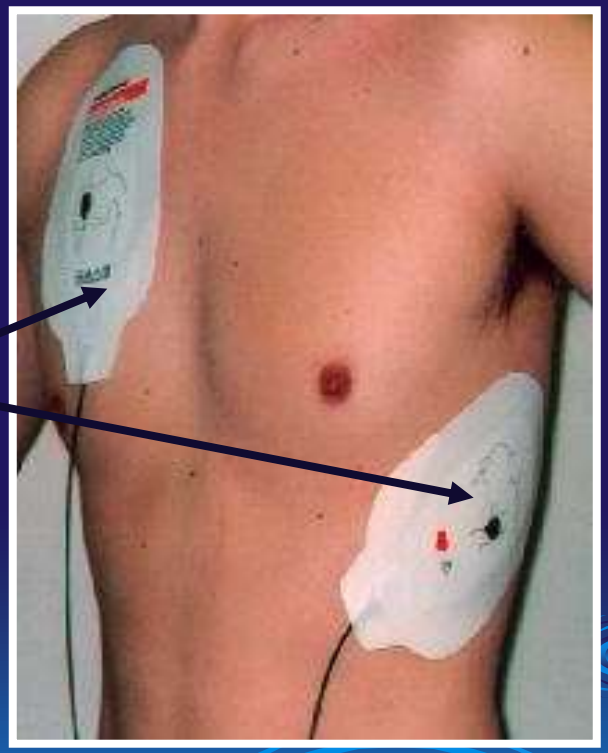
Using an AED is simple.

Adhesive Electrodes



Correct Placement

Well Illustrated



Using an AED is virtually mistake-proof!

Using an AED is simple.

Voice prompts take you through each step and are repeated as needed.

One (or two) button operation makes it easy to use.

It will not advance to the next step unless you complete the previous one.

It automatically monitors the patient's cardiac rhythm and determines if the patient requires a defibrillation shock.

If no shock is needed, it will not deploy the shock.

YOU CAN NOT USE THIS A WRONG WAY !!!

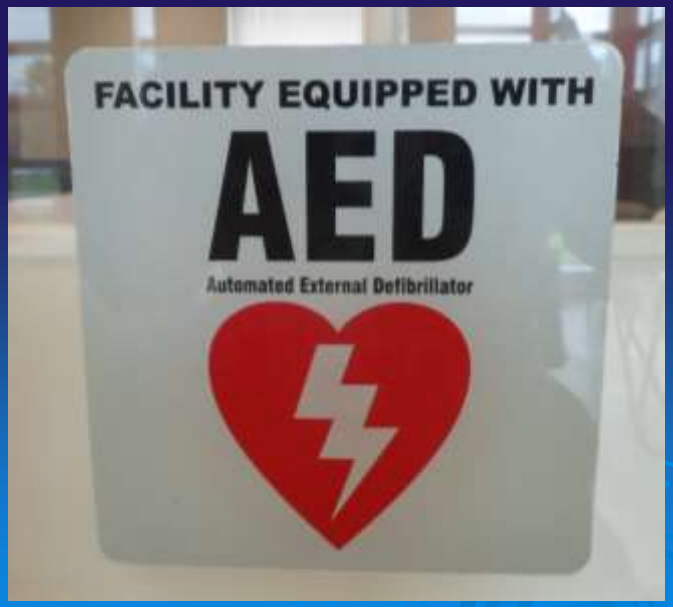
Take the FEAR out…

Using an AED is highly successful.

Sudden Cardiac Arrest Reversal Rates

- **CPR Only** → **0-2%**
- **EMS/ER** → **5-15%**
- **CPR/AED** → **30-75%**

The Universal AED Symbol



About AEDs

- While there are many styles of AEDs they all work the same.

- The first step is to turn the unit on and follow the voice prompts.

Our AEDs

- Palm Beach State College has 45 AEDs at its 4 campuses.

- We have 3 different models.

PALM BEACH STATE COLLEGE
AUTOMATED EXTERNAL DEFIBRILLATOR (AED) LOCATIONS

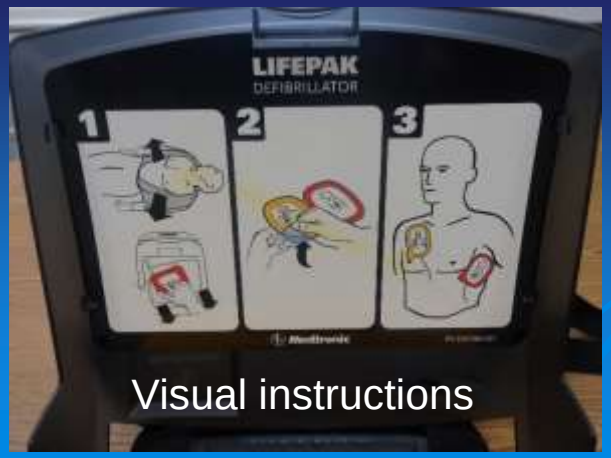
CAMPUS	PBSC CONTROL #	MANUFACTURER	DATE OF PURCHASE/ ACQUISITION	POSSIBLE REPLACE-MENT DATE	SERIAL #	BUILDING #	BUILDING NAME	SPECIFIC LOCATION	BATTERY/PADS REPLACED	BATTERY/PADS EXPIRATION DATE(S)
Belle Glade (3)	21621	Medtronic	8/2004	2015	34956405	100	Classroom Bldg A (CRA)	Main lobby, 1st floor, next to Registration (CRA117)	8/28/2014	10/28/2016
	21620	Medtronic	8/2004	2015	34191833	103	DH Cultural Arts Center (AU)	Lobby, next to Ticket Office (AU101)	6/4/2014	1/28/2017
	32445	Medtronic	9/2010	2020	35892215	105	Technical Education Center (TEC)	Main lobby, 1st floor		9/28/2015
Boca Raton (9)	21639	Medtronic	8/2004	2015	32291484	101	Classroom Bldg A (CA)	NE entrance, next to CA101		9/28/2015
	21638	Medtronic	8/2004	2015	32291493	102	Administration Bldg (AD)	Main lobby, 1st floor, next to elevator		11/28/2014
	34621	Philips	3/2014	2023	B14C-00493	104	Boca Tech (BT)	S entrance, 1st floor, next to elevator		4/2018
	27313	Cardiac Science	3/2009	2020	4150066***	104	Boca Tech (BT)	Wellness Center, next to BT146		Battery 1/2017 Pads 1/2016
	26659	Cardiac Science	12/2007	2020	4158511***	107	Humanities Technology (HT)	Next to HT103		Battery 9/20/2015 Pads 11/2014
	26660	Cardiac Science	12/2007	2021	4159723***	107	Humanities Technology (HT)	SW entrance, 1st floor, next to elevators		Battery 9/20/2015 Pads 11/2014
Palm Beach Gardens (10)	34034	Philips	5/2013	2021	813X002563	101	Administration (AD)	Security lobby, next to entrance		5/31/2017
	35094	Philips	3/2014	2024	B14C-00501	102	Classroom AA Bldg (AA)	Lobby, west wall, next to AA106		4/2018
	34036	Philips	5/2013	2023	813X002772	104	LLRC/Lab (LL)	Lobby, west wall, between two main entrance doors		5/31/2017
	21625	Medtronic	8/2004	2016	34250123	106	Reynolds Student Center (SR)	West wall, next to Student Services entrance	7/8/2014	10/28/2015
	34035	Philips	5/2013	2022	813X002546	107	Lesta Center (LC)	First floor, south corridor, next to LC106		5/31/2017
	21622	Medtronic	8/2004	2016	32291493	108	Dixon Theatre (AU)	Lobby, west wall, north and next to AU101		8/28/2015
	21624	Medtronic	8/2004	2017	34229959	111	Classroom BB Bldg (BB)	Lobby, west wall, next to BB111		11/28/2014
	34037	Philips	5/2013	2022	813X002545	115	Center for Early Learning (CEL)	Next to Kitchen (CEL115)		5/31/2017
	27001	Cardiac Science	12/2007	2020	4159724***	116	BioScience Building (SC)	First floor, left side, across from Wellness Center (SC118)		Battery 9/20/2015 Pads 11/2014
	21631	Medtronic	8/2004	2019	34191833	117	Facilities Building (FN)	Break Room (FN104.1), north wall	7/8/2014	10/28/2015
Historical (1)	21640	Medtronic	8/2004	2017	34279745	100	Historical Building (H)	1st floor, east wall, next to H109	7/8/2014	10/28/2015
Lake Worth (24)	26633	Cardiac Science	12/2007	2019	4158514***	102	Gymnasium (PE)	West wall, next to PE129		Battery 9/20/2015 Pads 11/2014
	21632	Medtronic	8/2004	2015	33954774	105	Cafeteria (CF)	Next to Staff & Faculty Lounge entrance from Cafeteria	6/10/2014	1/28/2017
	35035	Philips	10/2013	2022	813I-00723	108	Center for Bachelor's Programs (CBP)	Main lobby, 1st floor, west wall		Battery 7/2019 Pads 1/2016
	35690	Philips	5/2014	2024	B14C-00500	112	Business Administration (BA)	2nd floor, north entrance, east wall		Battery 6/1/2018 Pads 5/2016
	35691	Philips	5/2014	2024	B14C-00397	110	Finance (FN)	Main lobby, 1st floor, east wall		Battery 6/1/2018 Pads 5/2016
	23544	Medtronic	2/2014	2023	42114853	115	Dental Health (DH)	Dental Assisting/Clinic (DH113), east wall		12/28/2016
	21627	Medtronic	8/2004	2016	34244397	117	Technology Center (TC)	Main lobby, 1st floor, next to TC126	8/12/2014	1/28/2017
	21633	Medtronic	8/2004	2016	34244542	118	Information Tech II (ITB)	2nd floor, north entrance to IT 200	8/12/2014	1/28/2017
	26631	Cardiac Science	12/2007	2019	4159948***	120	Humanities (HU)	Main lobby, 1st floor, next to HU126		Battery 9/20/2015 Pads 11/2014
	35034	Philips	10/2013	2022	813I-00731	121	Security Building (SEC)	Next to SEC106		Battery 7/2019 Pads 1/2016
	21644	Medtronic	8/2004	2017	32291473	128	Educational & Training A (ETA)	Main lobby, 2nd floor, top of stairs		8/28/2015
	21626	Medtronic	8/2004	2015	32291463	131	Duncan Theatre (AU)	Lobby, right side, next to Men's Room		8/28/2015
	35689	Philips	5/2014	2024	B14C-00452	132	Social Science (SS)	1st floor, east entrance, south wall		Battery 6/1/2018 Pads 5/2016
	21636	Medtronic	8/2004	2017	34292041	138	Educational & Training B (ETB)	West lobby next to ETB101	7/8/2014	10/28/2016
	21641	Medtronic	8/2004	2017	34362669	148	Educational & Training C (ETC)	East lobby, across from ETC108	7/8/2014	10/28/2016
	21629	Medtronic	8/2004	2020	34362692	150	Educational & Training D (ETD)	East lobby next to ETD109	7/8/2014	10/28/2016
	21634	Medtronic	8/2004	2018	34398118	201	Science 2 (SCA)	Northeast entrance, next to SCA110	7/8/2014	10/28/2016
	21628	Medtronic	8/2004	2016	34363018	208	Allied Health (AH)	South entrance, next to AH117	6/3/2014	1/28/2017
	21630	Medtronic	8/2004	2018	34943370	235	Facilities District (FD)	Break Room (FD114), east wall		11/28/2014
	26632	Cardiac Science	12/2007	2018	4160011***	501	Natural Science Building (NS)	South hallway, west wall, next to main lobby		Battery 9/20/2015 Pads 11/2014
	21638	Medtronic	8/2004	2019	34298612	510	Continuing Education (CE)	East lobby, next to CE118	6/10/2014	1/28/2017
	35033	Philips	10/2013	2021	813I-00733	540	EMT/Paramedics (PSD)	EMT Lobby, next to PSD139		Battery 7/2019 Pads 1/2016
	35036	Philips	10/2013	2021	813I-00734	541	Wellness Center (PSW)	1st floor, main entrance, east wall		Battery 7/2019 Pads 1/2016
	21643	Medtronic	2/2014	2023	42114851	541	Wellness Center (PSW)	2nd floor (Tactical Training Gym), main entrance, east wall		12/28/2016
Portable Units - LW (1)	21642	Medtronic	8/2004	2019	34758668	535	Fire Academy Complex (FAC)	Next to FAC103	9/28/2014	3/28/2017

Manufacturer/Model - Quantity: Medtronic (now Physio-Control)/LIFEPAK CR Plus - 25; Physio-Control technical support is Eric at (800) 442-1142, Ext 74564.
Cardiac Science/Powerheart G3 - 7
Philips/HeartStart FRx - 13

- They are situated so as to achieve a 3-minute response.

Our AEDs – Model 1

- LIFEPAK CR Plus, made by Medtronic (now Physio-Control)



Our AEDs – Model 2

- Powerheart G3, made by Cardio Science

Our AEDs – Model 3

- HeartStart FRx, made by Philips

Our AED Locations

The location maps for our AEDs can be found online at http://www.palmbeachstate.edu/safety/Documents/AEDLocationMap.pdf.

Our AEDs

- AED batteries and pads have a 2- to 4-year expiration date.
- Our Security Officers check the AEDs each month to ensure that they are carrying a proper charge.
- Batteries and pads are replaced upon expiration or as necessary.

And now, how to use an AED.

1. Turn on the AED

Follow the voice prompts and/or visual commands.

AED's can be turned on with either:

A button

OR BY

Opening the cover.

How to Use an AED

2. Expose the chest

- Open shirt/blouse (rip open!) or cut clothing if necessary.
- Remove any medication patches.

- Make sure chest is clean and dry.
- CPR should be ongoing.

How to Use an AED

3. Attach pads

First:

- Remove pads from packet.
- Remove backing from pads, one at a time, **then place them as shown on the pads.**

How to Use an AED

3. Attach pads (continued)

- One pad goes on the upper right chest below collarbone.

Stick pads firmly to the skin.

- One pad goes on the left side chest wall.
- CPR should be ongoing.

How to Use an AED

4. Plug in Connector (if necessary)

- If necessary, plug in pad connector to unit.
- There is usually a flashing light beside the slot.
- CPR should be ongoing.

How to Use an AED

5. Stay clear

- When the AED so advises, stop CPR.
- Make sure that nobody, including yourself, is touching the victim.

Say, “Everyone stand clear!”

How to Use an AED

6. Allow AED to analyze the rhythm

- Once the pads are in place, the AED will "analyze" the heart rhythm to determine if a shock should be administered.
- Touching the victim will interrupt the AED's analysis.
  - There are 4 electrical rhythms that the heart can be in when the heart stops beating, only 2 of which are shockable, ventricular fibrillation and pulseless ventricular tachycardia.
- If "Shock advised", shock victim and resume CPR.
- If "No shock advised", then resume CPR.

How to Use an AED

7. Deliver the shock

If AED prompts a shock:

- Make sure no one is touching the victim.
- Push the “Shock” button.
- Some AEDs will shock automatically, including two of the College’s models.

How to Use an AED

8. If no shock advised…

- If no shock is advised, continue CPR. Effective CPR may lead to a shockable rhythm.
- Every 2 minutes follow the AED prompts.
- Stop CPR if you see signs of life (breathing, movement).

How to Use an AED

9. After the shock

- After the shock is delivered, resume CPR. Do not stop CPR for more than 10 seconds.
- **Do not** turn off AED! It will continue to monitor the victim's heart rhythm.
- It is now safe to touch the pads and patient.
- Every 2 minutes follow the AED prompts.

How to Use an AED

9. After the shock (continued)

- Stop CPR if you see signs of life (breathing, movement). If breathing is inadequate, assist ventilations.
- Do not remove AED pads! Even if the victim seems to have recovered. The AED is still at work.
- If necessary, continue CPR and keep pads on until EMS personnel arrive.

How to Use an AED

10. Special Circumstances For:

a) Children
b) Wet person
c) Hairy chest
d) Bra
e) Jewelry
f) Implanted pacemaker/defibrillator
g) Transdermal medication (patch)
h) Metal surface

How to Use an AED

10a) Children

- AEDs can be used on children as young as newborns.
- Some AEDs have child pads.
  - The College's LIFEPAK and Powerheart AEDs do not have child pads.
  - The College's HeartStart AEDs (red case) have a child key.


How to Use an AED

10a) Children

- Use child pads if child is younger than 8 and less than 55 lbs.
- If no child pads, adult pads will have to be used.
- One pad goes in the center of the chest and the 2nd pad goes on center of the child's upper back.

How to Use an AED

10b) Wet person

- Remove victim from water or wet surface.
- Dry off victims chest (and back if a child under age 8) before attaching pads.
- Attach pads following the directions.
- The rest of the victim does not need to be dry.
- AEDs can be used on wet surfaces and snow as long as ***patient is dry and not*** in a puddle of water.

How to Use an AED

10c) Hairy chest

- Pads may not stick to victim with hairy chest.
- AED accessory kit has a razor.

- Shave ONLY the area of chest that pads will attach to.
- Wipe off hair and attach pads.
- If no razor present, attach pads to chest and see if AED will work.
- If AED *does not work*, continue CPR.

How to Use an AED

10d) Bra

- Many bras contain metal (lips, underwire).
- 

  Remove / cut bra if AED pads will touch the metal.
- AED accessory kit has a scissors.

How to Use an AED

10e) Jewelry

- Ignore jewelry if it will not touch the AED pads.
- If in the way, push jewelry to side of neck away from AED pads.
- Do not waste time removing jewelry.

How to Use an AED

10f) Implanted pacemaker/defibrillator

- Do not place AED pads directly over implanted devices.
- Pacemakers are located under the collarbone on right or left side of chest.

  (Look for the scar.)

- If located on right side, place AED pad at least one inch below pacemaker.

How to Use an AED

10g) Transdermal medication (patch)

- Remove patch and wipe clean before attaching AED pads.

10h) Metal surface

- Is the victim lying on a metal surface? If so, move the victim.
- The metal surface may cause the shock from the AED to hit you.

Recovery Position

- If victim begins breathing and having a pulse, then turn victim to their side with lower arm in front. Leave AED attached.

- No position is perfect—just make sure they are stable, near a true lateral position, and there is no pressure on the chest to impair breathing.

How to Save A Life

Step Four

Early Advanced Life Support

- The EMTs (AKA “The Cavalry”) show up.

- Although EMS personnel employ haste, it will still take them 7 – 8 minutes to arrive, enough time for someone to die without CPR and an AED.

In the meantime, you may have just saved a life.

CONGRATULATIONS!!

To Summarize:

SAVING A LIFE IS EASY

IF YOU OBSERVE AN ADULT OR PERSON >8 COLLAPSE OR THEY ARE FOUND UNRESPONSIVE:

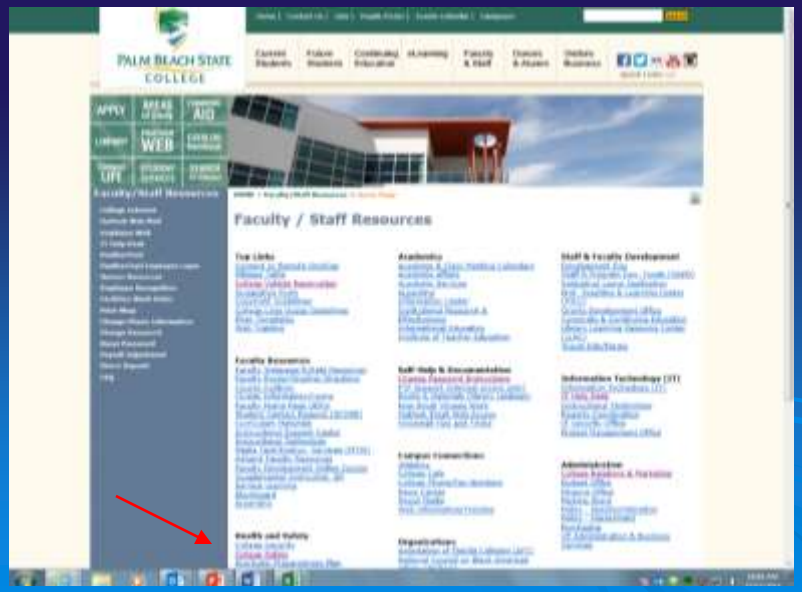
- DIRECT SOMEONE TO CALL 9-1-1 AND HAVE THEM STAND BY TO LEAD PARAMEDICS TO THE PATIENT.
- DIRECT SOMEONE TO GET AN AED.
- START FORCEFUL CHEST COMPRESSIONS AT 100 PER MINUTE CONTINUE UNTIL AED OR PARAMEDICS ARRIVE.
- ATTACH AED TO PATIENT AND FOLLOW VERBAL INSTRUCTIONS.
- CONTINUE PERFORMING FORCEFUL CHEST COMPRESSIONS AND FOLLOWING AED INSTRUCTIONS UNTIL ARRIVAL OF PARAMEDICS.

FINALLY

Here is a 17-minute video that will summarize everything that has been covered so far.

http://media.palmbeachstate.edu/wmroot/AED.asx

You can access the video from the Safety and Risk Management web site.



MORE

If you are interested in receiving more extensive “hands-on” training in CPR and how to use an AED, you may enroll in one of the Heartsaver AED classes offered by the Office of Human Resources as part of the Institute of College Learning.

QUESTIONS?