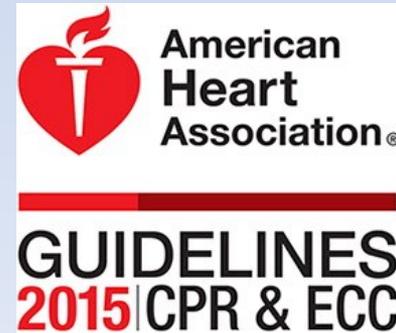
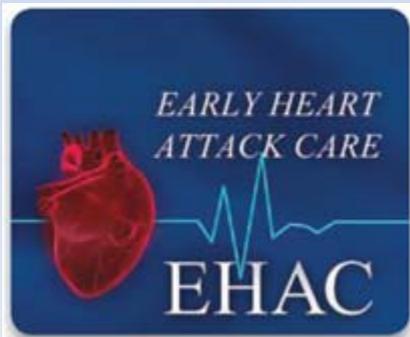




**Presents**  
**American Heart Association**  
**BLS / AED Training**  
**for the**  
**“Neighbors Saving Neighbors”**  
**Program**



# WELCOME !

- **Local Neighbors Saving Neighbors Partnership:**
  - Lake Jovita, Sponsor
  - [Lew Simon](#), Founder, “Neighbors Saving Neighbors”
  - ReadyAlert
  - The Society of Cardiovascular Patient Care: EHAC
  - Pasco County Fire Rescue – [EMS Chief Tim Reardon](#)
  - Bayfront Health Dade City – Shauna McKinnon, CEO
- **Adult Heartsaver CPR & AED Course, presenters:**
  - Bayfront Health Dade City – AHA Instructors:
  - [Wayne Ruppert](#), [Randy Austin](#), Peter Roehrig.

# Neighbors Saving Neighbors

## *Why this program is different:*

- Neighborhood based CPR/AED trained and equipped Response Team
- County 911-dispatched.
- When a caller reports to 911 that a victim is unconscious and not breathing, 911 will activate the team via “ReadyAlert” simultaneously while dispatching EMS.
- ***CPR/AED Responders are ON THE SCENE in LESS THAN 2 minutes !***

# Neighbors Saving Neighbors

## WHAT IT'S ALL ABOUT:

<http://www.wtsp.com/news/health/neighbors-aid-neighbors-with-cpr-system/66492961>

<https://www.youtube.com/watch?v=YcM-iV10zRY>

# ***CARDIAC ARREST***

- ***NO HEARTBEAT***
- ***NO BREATHING*** or “agonal gasping” only
- ***NO BLOOD*** is being circulated

# ***CARDIAC ARREST***

- ***BRAIN CELLS begin to DIE in 4-6 MINUTES***



***CPR must be started within 4 - 6 minutes !***

# ***CARDIAC ARREST***

- ***The patient's chances of survival decrease by 10% for every minute that passes without DEFIBRILLATION (the electrical shock from an AED).***

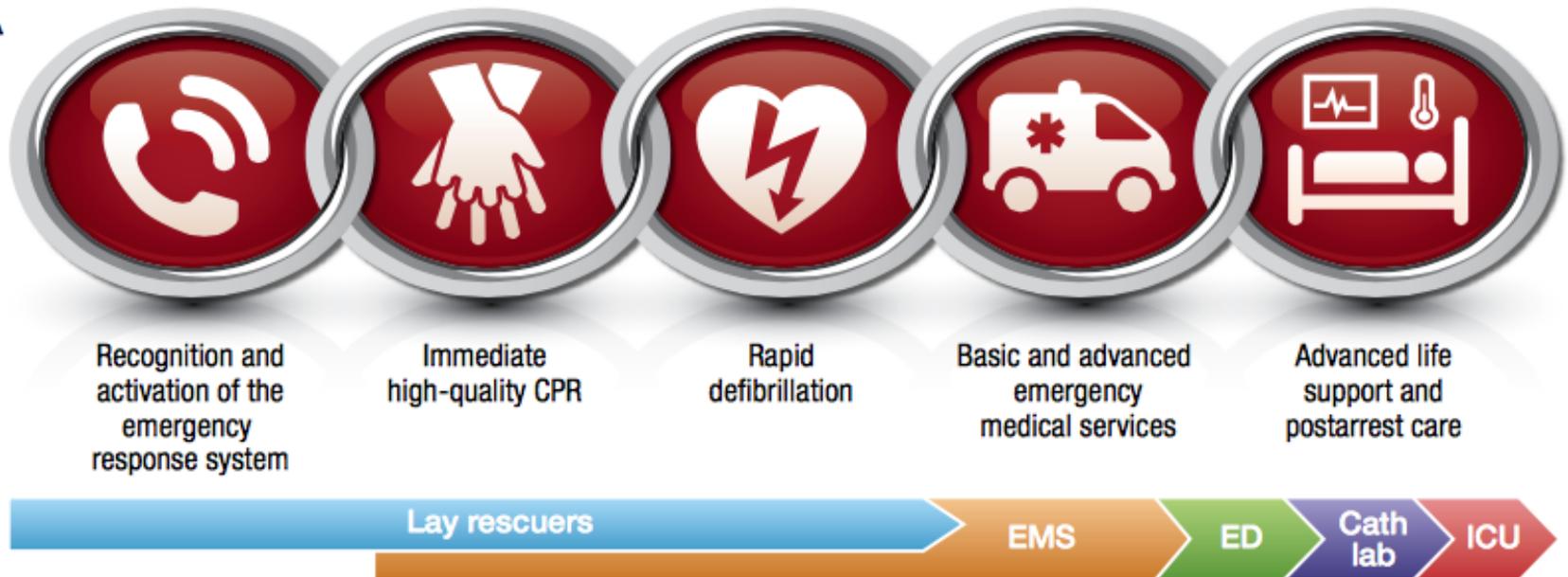
# Average Response Times for CARDIAC ARREST CARE:

- EMS response: **8 – 10 MINUTES**
- Neighbors Saving Neighbors  
Response Team: **< 2 minutes!**

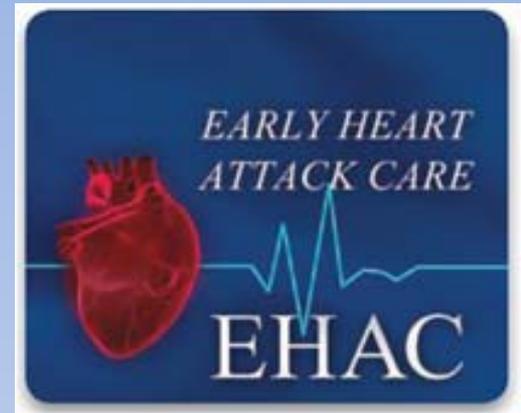
***Neighbors Saving Neighbors***  
***SAVES LIVES.***

# AHA'S “CHAIN OF SURVIVAL”

OHCA



***The “Neighbors Saving Neighbors” Program  
REDEFINES LINKS 2 & 3 of the CHAIN-OF-SURVIVAL.***



***“THE BEST treatment for  
CARDIAC ARREST is to  
PREVENT IT!!”***



Heart disease is the leading cause of death in the United States.

**600,000 people** die of heart disease in the United States every year

***About 47% of sudden cardiac deaths - 282,000 - occur outside a hospital.***



Heart disease is the leading cause of death in the United States.

**600,000 people** die of heart disease in the United States every year

***About 47% of sudden cardiac deaths - 282,000 - occur outside a hospital.***

***Many of these people had WARNING SIGNS – but FAILED TO ACT on them!***

**Question: HOW CAN WE  
PREVENT CARDIAC ARREST ??**

**Question: HOW CAN WE  
PREVENT CARDIAC ARREST ??**

**Answer: KNOW the SYMPTOMS  
of HEART ATTACK . . . And ACT on  
them BEFORE cardiac arrest  
occurs!**



***WHAT ARE SOME  
“EARLY HEART ATTACK”  
WARNING SIGNS ? ?***

# ***CLASSIC SYMPTOMS OF HEART ATTACK***

- ✓ **CHEST PAIN - DESCRIBED AS . . .**
  - "HEAVINESS, PRESSURE, DULL PAIN, TIGHTNESS"
  - CENTERED IN CHEST, SUBSTERNAL
  - MAY RADIATE TO SHOULDERS, JAW, NECK, LEFT or RIGHT ARM
  - NOT EFFECTED by:
    - MOVEMENT
    - POSITION
    - DEEP INSPIRATION
  
- ✓ **SHORTNESS OF BREATH**
  - MAY or MAY NOT BE PRESENT
  
- ✓ **NAUSEA / VOMITING**
  - MAY or MAY NOT BE PRESENT

***CALL 911 !***

***NOT EVERYONE having a  
HEART ATTACK gets CHEST  
PAIN. Especially these people:***

***-FEMALES***

***-DIABETICS***

## **OTHER SYMPTOMS OF HEART ATTACK:**

- SHORTNESS OF BREATH**
- INDIGESTION**
- ABDOMINAL PAIN (above belly button)**
- NECK, SHOULDER, ARM, JAW PAIN**
- OVERWHELMING FATIGUE / WEAKNESS**
- COLD SWEATS**
- DIZZINESS**
- HEART PALPITATIONS**

**WHEN SOMEONE HAS SYMPTOMS OF  
HEART ATTACK:**

**1. BEST COURSE OF ACTION IS CALLING**

***911***

-WITHIN 1<sup>st</sup> HOUR,  
HIGHEST RISK of DEATH

-FIRST 2 HOURS, 85% of  
HEART DAMAGE OCCURS



NATIONAL GOAL OF EMERGENCY HEART  
ATTACK CARE:

***OPEN BLOCKED VESSEL WITHIN 90 MINUTES  
OR LESS of FIRST MEDICAL CONTACT.***

# WHEN SOMEONE HAS SYMPTOMS OF HEART ATTACK:

1. BEST COURSE OF ACTION IS CALLING 911
2. TAKE 324 mg ASPIRIN  
(Best to CHEW it or chew FOUR 81mg Children's Aspirin)

# WHEN SOMEONE HAS SYMPTOMS OF HEART ATTACK:

1. BEST COURSE OF ACTION IS CALLING 911
2. TAKE 324 mg ASPIRIN  
(unless ALLERGIC to Aspirin !)
3. **Remain calm**

# WHEN SOMEONE HAS SYMPTOMS OF HEART ATTACK:

1. BEST COURSE OF ACTION IS CALLING 911
2. TAKE 324 mg ASPIRIN  
(unless ALLERGIC to Aspirin !)
3. Remain calm
4. **Get AED (Automatic External Defibrillator), if available. IF PATIENT BECOMES unresponsive and stops breathing or exhibits “agonal breathing,” TURN AED ON and FOLLOW ITS INSTRUCTIONS.**

# WHEN SOMEONE HAS SYMPTOMS OF HEART ATTACK:

1. BEST COURSE OF ACTION IS CALLING 911
2. TAKE 324 mg ASPIRIN  
(unless ALLERGIC to Aspirin !)
3. Remain calm
4. Get AED (Automatic External Defibrillator), if available.
5. EMS transport to nearest Chest Pain Center with PCI (balloon / stent) capabilities.



**Bayfront Health**  
**Dade City**

**AVERAGE DOOR-TO-  
REPERFUSION TIME  
= 48.5 MINUTES.**

***41.5 MINUTES FASTER THAN  
NATIONAL GOAL OF 90 MIN.***



**Bayfront Health**  
**Dade City**

Recently:

**13 MINUTE door-to-balloon**  
**Hernando Co Fire Rescue**



**Recently:**

**63 y/o male**

**CARDIAC ARREST in Dade City**

**PASCO COUNTY FIRE RESCUE**

**Resuscitated patient -**

***12 minute Door-to-PCI***

**Question: HOW CAN WE  
PREVENT HEART ATTACK? ?**

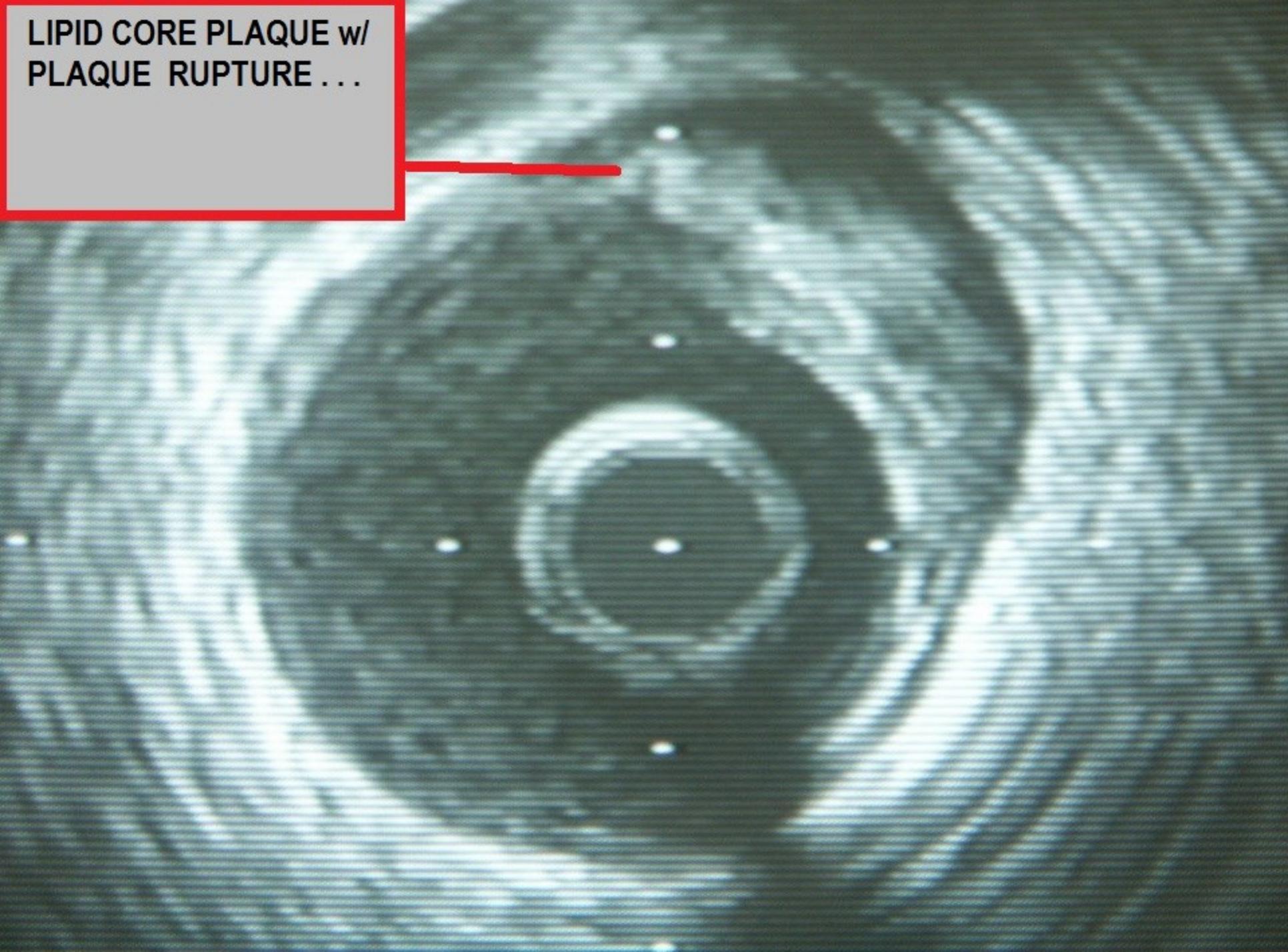
**Question: HOW CAN WE  
PREVENT HEART ATTACK? ?**

**Answer: Besides eating healthy,  
not smoking, getting regular  
exercise and keeping cholesterol  
down, we can TAKE AN ASPIRIN  
DAILY !**

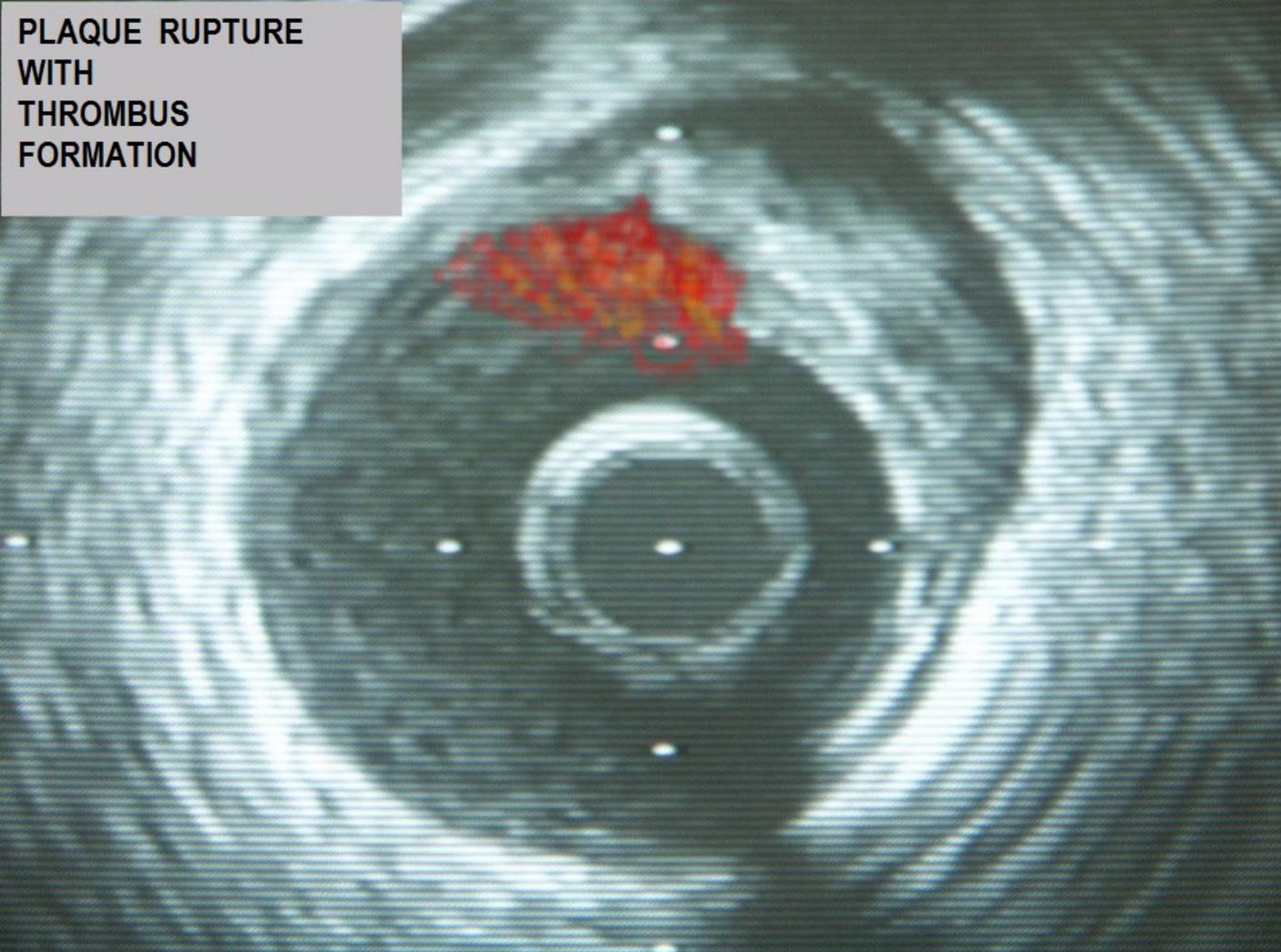
**BECAUSE . . . .**

***HEART ATTACK IS ALMOST  
ALWAYS CAUSED BY A  
“ PLAQUE RUPTURE “  
FOLLOWED BY THE  
FORMATION OF A BLOOD  
CLOT . . .***

LIPID CORE PLAQUE w/  
PLAQUE RUPTURE ...

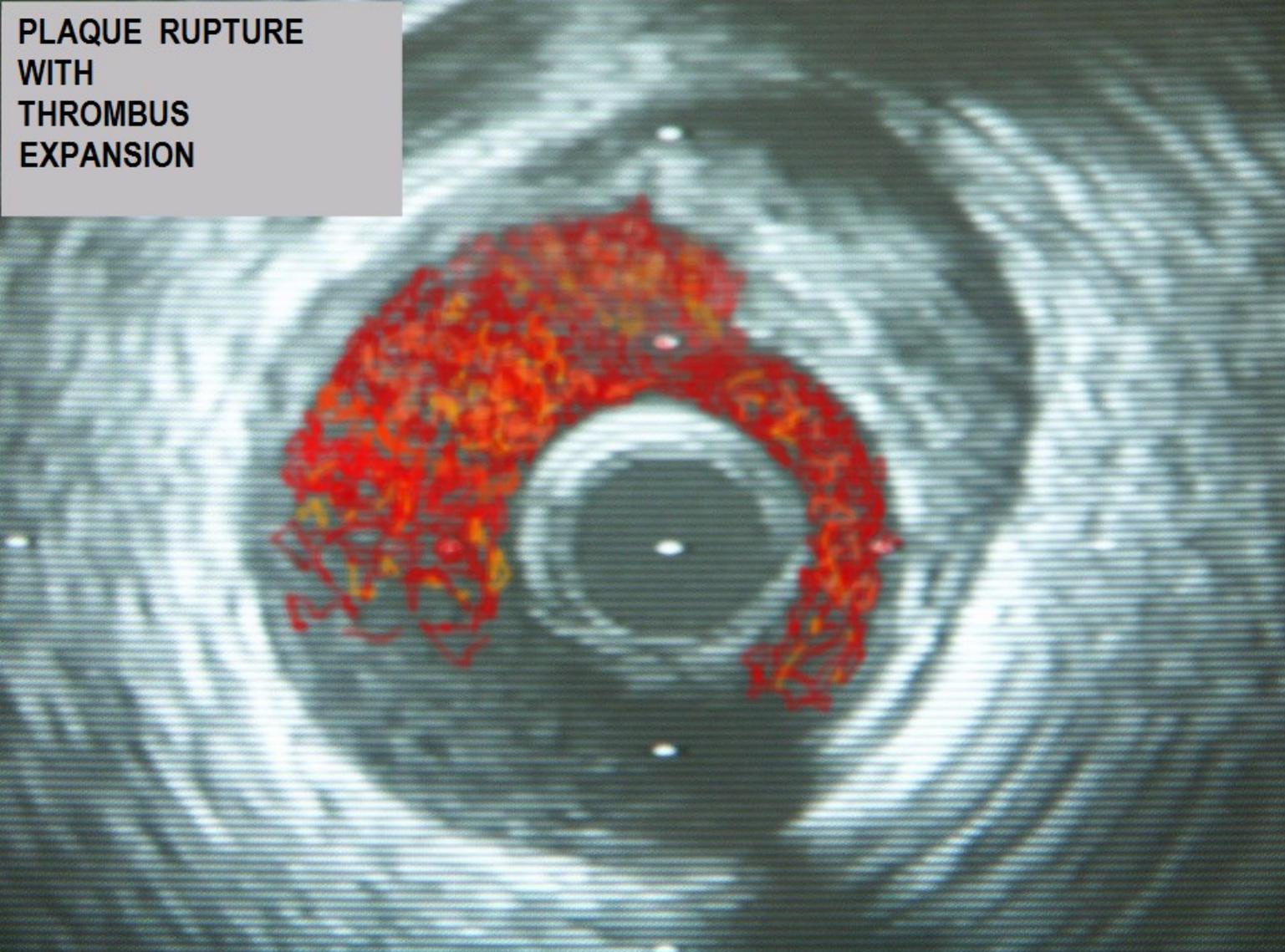


PLAQUE RUPTURE  
WITH  
THROMBUS  
FORMATION



**THE CAUSE OF HEART ATTACK IN 90% OF  
CASES IS PLAQUE RUPTURE WITH THROMBUS  
FORMATION**

PLAQUE RUPTURE  
WITH  
THROMBUS  
EXPANSION



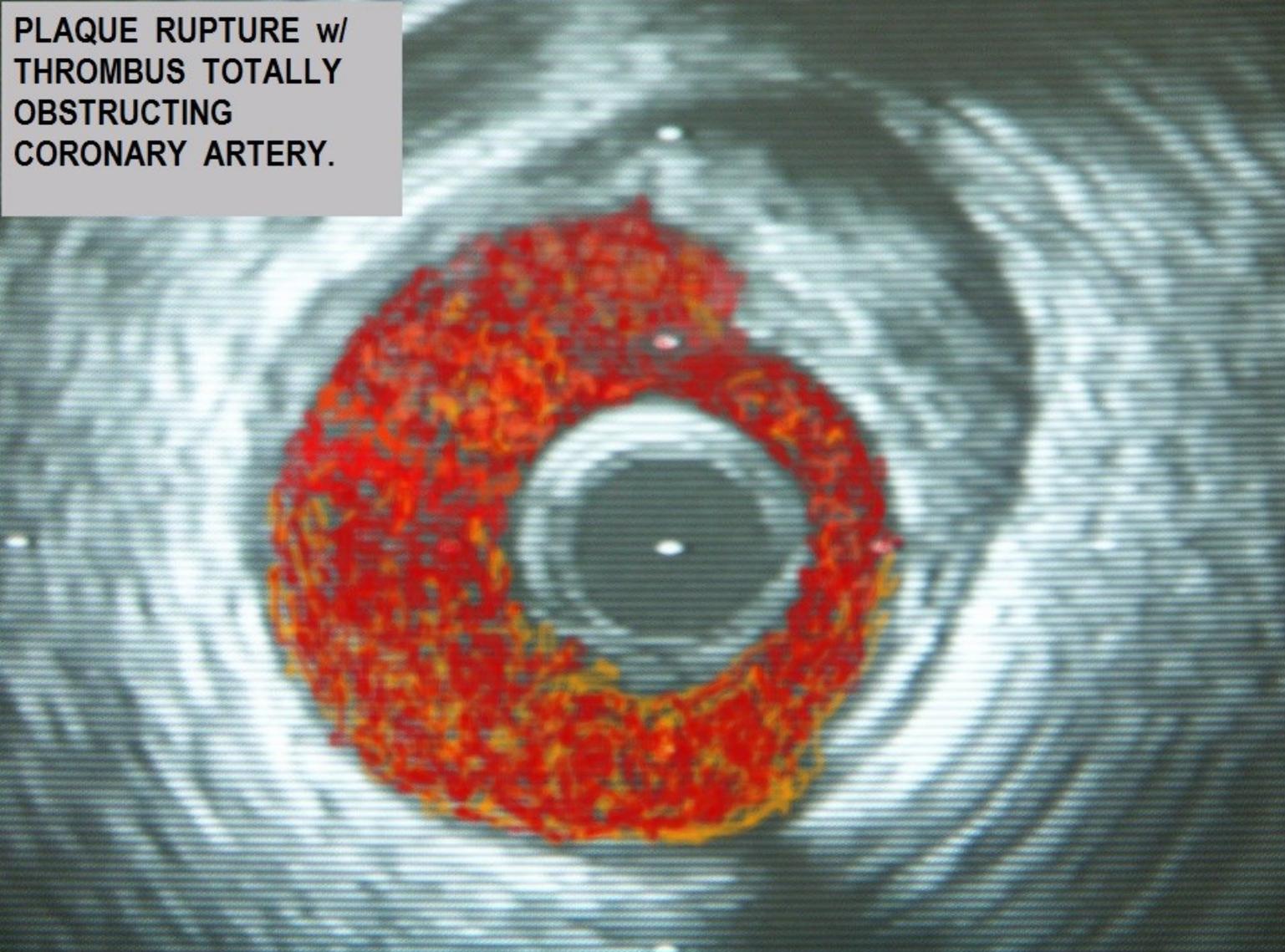
*AT THIS POINT, the patient may begin to  
Complain of CARDIAC SYMPTOMS . . .*

# ASPIRIN

*MAY HALT THE PROGRESSION OF  
THE THROMBUS (BLOOD CLOT)  
FORMATION !!!*

*4 CHEWABLE 81 mg TABLETS  
WORK BEST.*

**PLAQUE RUPTURE w/  
THROMBUS TOTALLY  
OBSTRUCTING  
CORONARY ARTERY.**



**AT THIS POINT,  
PATIENT COMPLAINS OF CONTINUOUS SYMPTOMS . . .**

# ***Cardiac Arrest***

- **Heart stops pumping blood.**
- **Patient not breathing or only “gaspings”**
- **Skin rapidly turns ashen / blue**
- **Brain cells begin to die quickly: 4 -6 minutes**

# *Cardiac Arrest*

**PRIORITY ONE:    START CPR**



**American  
Heart  
Association®**

---

**GUIDELINES  
2015 | CPR & ECC**

**“Compressions-Only CPR”**

**VS.**

**“Traditional compressions with ventilations”**

# 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care

Based on meta-analysis of the 2 largest randomized trials (total n=2496):

1. Dispatcher instruction in compression-only CPR was associated with long-term survival benefit compared with instruction in chest compressions and rescue breathing.
2. Among the observational studies, survival outcomes were not different when comparing the 2 types of CPR.

# 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care

## Delayed Ventilation

2015 (New): For witnessed OHCA with a shockable rhythm, it may be reasonable for EMS systems with priority-based, multitiered response to delay positive-pressure ventilation (PPV) by using a strategy of up to 3 cycles of 200 continuous compressions with passive oxygen insufflation and airway adjuncts.

Initial Patient Contact - See Protocol # 201  
Patient pulseless, may have gasping/agonal breathing

**Cardiac arrest witnessed by EMS personnel  
OR  
Quality CPR in progress on EMS arrival**

NO

YES

200 Uninterrupted  
Chest Compressions<sup>1,2</sup>

Analyze with AED  
Shock (360 joules<sup>3,4</sup>) if indicated

200 Uninterrupted  
Chest Compressions<sup>1,2</sup>

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200 Uninterrupted  
Chest Compressions<sup>1,2</sup>

Analyze with AED  
Shock (360 joules<sup>3,4</sup>) if indicated

Continue cycles of 200  
compressions followed by AED  
analysis/shock<sup>1,3</sup>  
BVM: 1 ventilation/ 15  
compressions  
May use mechanical CPR  
device (optional)

## PA Dept of Health EMS Protocols 2014:

[http://pehsc.org/wp-content/uploads/2014/05/Statewide BLS Protocols Final 020915.pdf](http://pehsc.org/wp-content/uploads/2014/05/Statewide_BLS_Protocols_Final_020915.pdf)

Return of  
Pulse

Assess Vital  
Signs

Provide  
Oxygen and  
Ventilate as  
needed  
(Goal= SpO2  
95-99%)

Place in  
Recovery  
Position

Transport  
ASAP

**DURING UNINTERRUPTED COMPRESSIONS:**

Airway Options:<sup>5</sup>  
Naso/oropharyngeal  
Airway

Ventilation Options:<sup>5</sup>  
No Ventilation  
or  
1 ventilation every 15  
compressions

Oxygen Options:<sup>5</sup>  
Via NRB  
or  
Via BVM

Give Compressions  
while AED is charging

**NO** mechanical CPR  
device during initial 10  
minutes

# Compressions Only CPR

<https://www.youtube.com/watch?v=VzSq-88lbak>

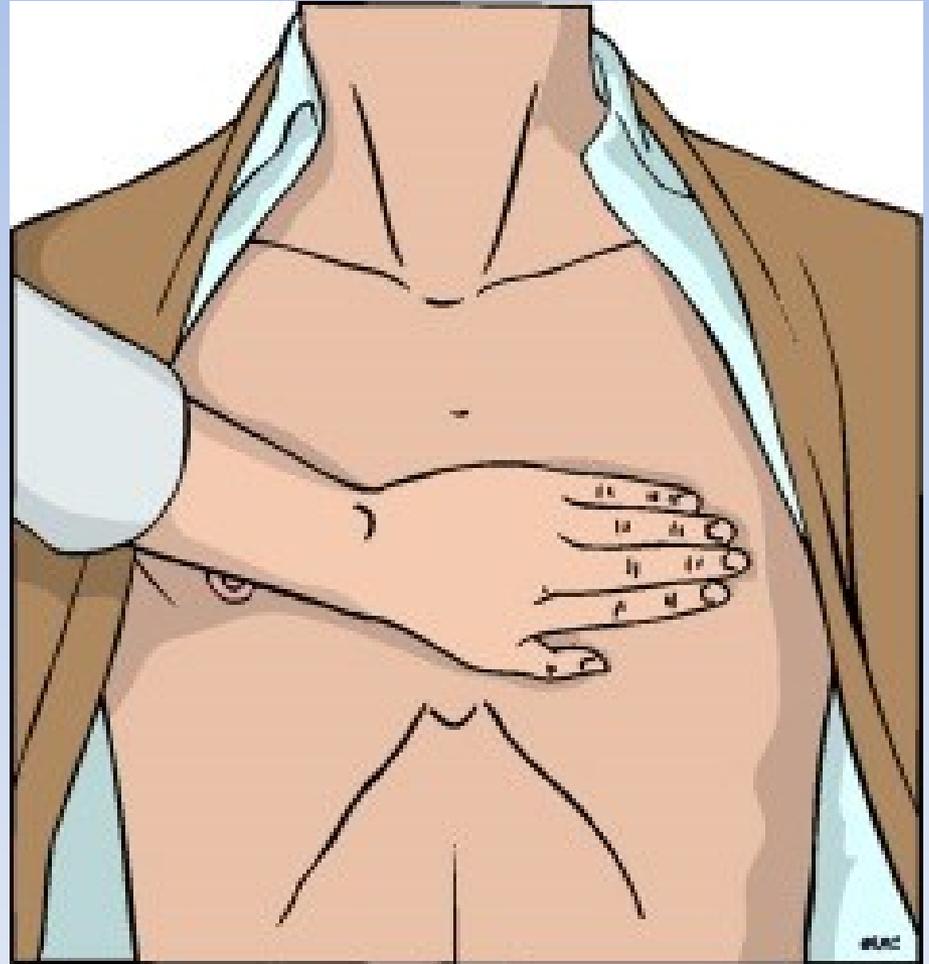
<https://www.youtube.com/watch?v=EcbgpiKyUbs>

# APPROACH PATIENT

- MAKE SURE SCENE IS SAFE
- PATIENT IS UNRESPONSIVE, NOT MOVING,  
NOT BREATHING (OR HAS AGONAL GASPING)
- BEGIN CHEST COMPRESSIONS . . .

# Hand positioning

Heel of hand on  
lower ½ of  
sternum  
(breastbone)



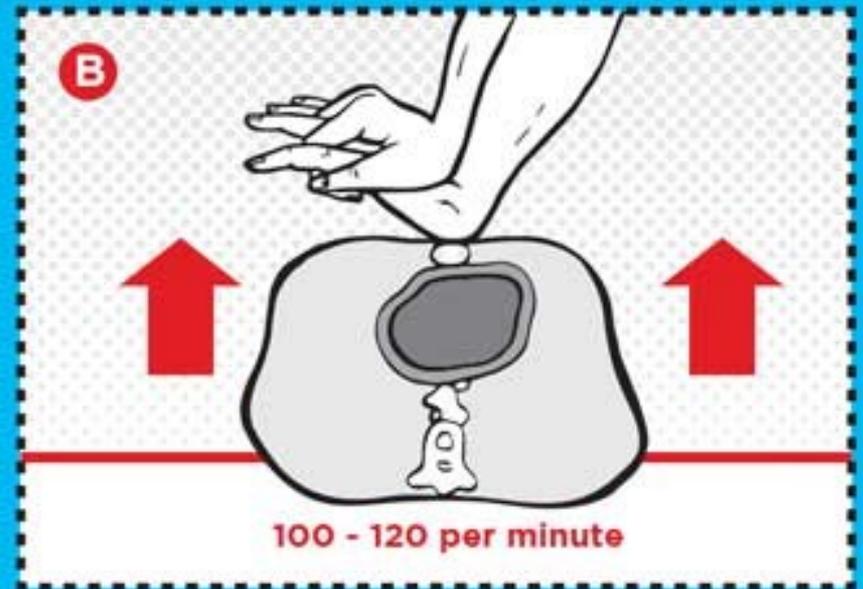
Press down 2.0 – 2.4 inches depth,  
then allow full recoil of chest



2" (5 cm) - 2.4" (6 cm)

CHEST COMPRESSIONS:

At least 2" (5 cm) and  
not more than 2.4" (6 cm)



100 - 120 per minute

COMPRESSION RATE:

Between 100 and 120  
compressions per minute

# Hands-on CPR practice time!

Remember SCENE SAFETY !

To the tune of  
“Stayin’ Alive!”

[https://www.youtube.com/watch?v=l\\_izvAbhExY](https://www.youtube.com/watch?v=l_izvAbhExY)

# *Cardiac Arrest*

**PRIORITY ONE:    START CPR**

**PRIORITY TWO:    AED**

# Cardiac Arrest – Heart Rhythms

- **Ventricular Tachycardia**
- **Torsades de Pointes**
- **Ventricular Fibrillation**
- **Asystole**
- **Pulseless Electrical Activity**

**Above 3 listed rhythms (in red) need  
DEFIBRILLATION (AED) to treat !**

# RESUSCITATE

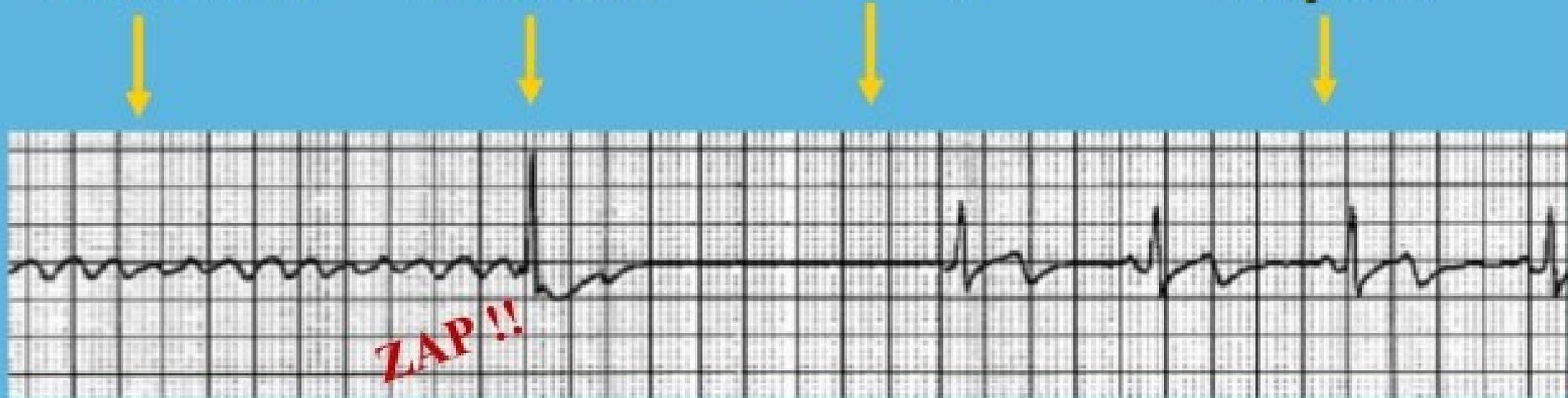
## How the AED Works

**Ventricular  
Fibrillation**

**Shock  
Delivered**

**Heart  
Recovery**

**Normal Sinus  
Rhythm**



In Ventricular Fibrillation heart muscles become all “squirmy”  
... they don’t pump blood properly

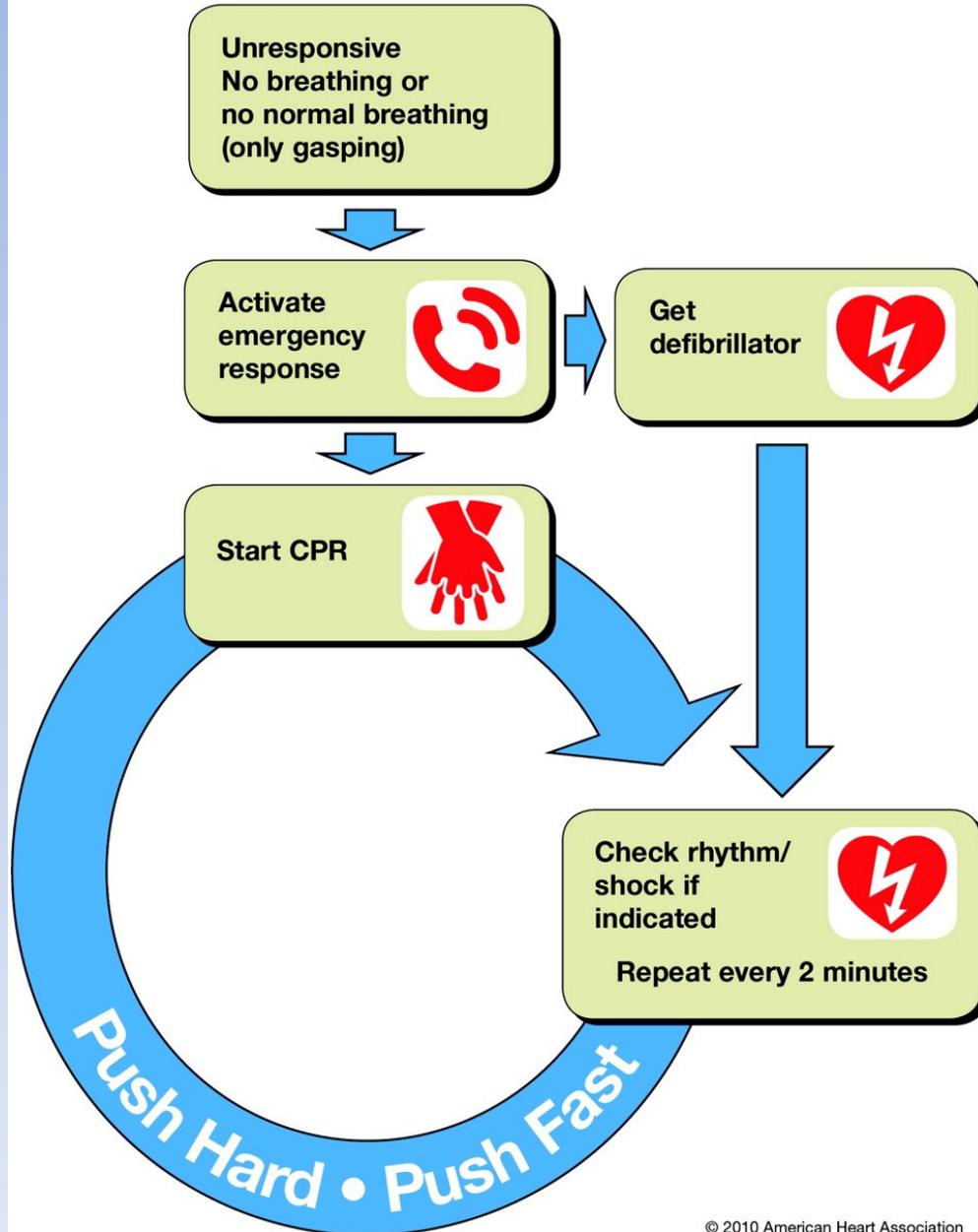
The AED recognizes that and shocks the heart  
... often that fixes the problem



# Ventricular Fibrillation

[CLICK HERE for animation of heart in VENTRICULAR FIBRILLATION](#)

## Simplified Adult BLS



AEDs – many different brands, but they've all got the same functions and instructions . . .



**[CLICK HERE TO WATCH AED INSTRUCTION VIDEO](#)**

## QUICK USE INSTRUCTIONS

PRESS "ON"  
BUTTON

1



APPLY PADS  
FOLLOW AED  
INSTRUCTIONS

2



IF INSTRUCTED,  
PRESS "SHOCK"  
BUTTON

3



## WHEN TO USE

### WHEN TO USE THE AED

Use the AED when the patient is:

- Unconscious
- Unresponsive
- Not breathing

For patients under 8 years old or less than 55 pounds (25kgs), use child/infant electrode pads. Do not delay therapy to determine exact age or weight.

### WHEN NOT TO USE THE AED

The AED should not be used if the patient is:

- Conscious and/or responsive
- Breathing
- Has a detectable pulse

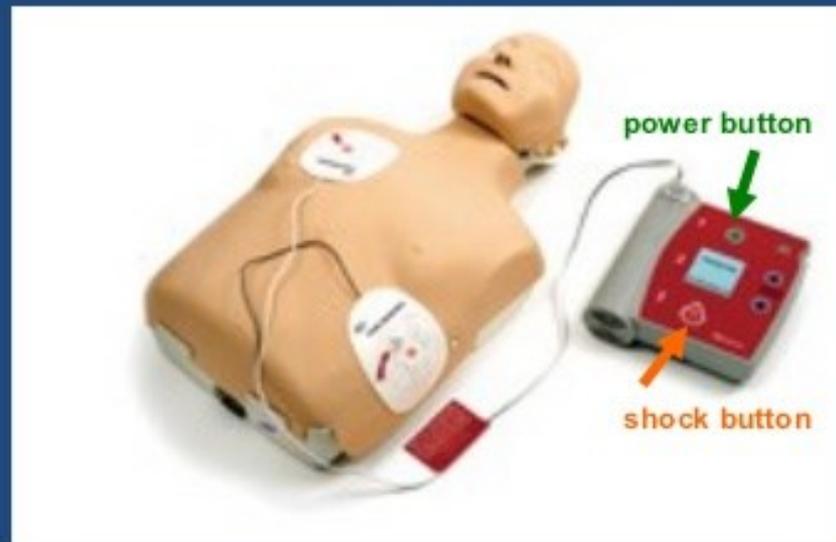
### WHO SHOULD USE THE AED

The user should have:

- Defibrillation training as required by local, state, provincial, or national regulations.
- Any additional training as required by the authorizing physician.
- Thorough knowledge and understanding of the material presented in this Operating Guide and in the User Manual (on Defibtech User CD).

# Use of an AED

- ❖ Power on the AED
- ❖ Apply pads to the victim's bare chest
- ❖ Plug the pads into the AED
- ❖ "Clear" the victim and allow it to analyze
- ❖ If a shock is advised, "clear" the victim again and press the shock button
- ❖ Continue chest compressions
- ❖ Every 2 minutes the AED will repeat the steps



**Discuss SAFETY CONSIDERATIONS for use  
of AED**

# HANDS-ON AED PRACTICE TIME !

1. If lid is CLOSED, open lid
2. Turn AED “ON” and follow instructions
3. Apply patches to Victim’s chest
4. When AED says: “Analyzing Rhythm, DO NOT touch patient,” STOP CPR
5. If AED states, “Shock Advised, STAND CLEAR, Charging– press RED BUTTON to SHOCK,” follow instructions.
6. IMMEDIATELY after shock delivered, resume CHEST COMPRESSIONS.
7. Switch rescuers every 100-200 compressions (1-2 minutes)
8. AED will re-check rhythm (and shock if needed) every 2 minutes.

## Neighbors Saving Neighbors - RESPONSE PROCEDURE

- Responders activated by 911 / ReadyAlert
- Ideal response: 2 or more Responders
- Responder closest to victim's location (Responder 1) goes to victim's location, assure scene safety, and begins CPR
- Responder 2 obtains AED, then goes to victim's location. Immediately relieves Responder 1 from Chest Compressions
- While switching rescuers keep pause in compressions to an absolute minimum.
- Responder 1 turns on AED and follows instructions. (applies patches, allows AED to analyze patient's heart rhythm)

# Neighbors Saving Neighbors - RESPONSE PROCEDURE

## Additional Important Responsibilities:

- Provide relief for Chest Compressions
- Direct EMS into the scene
- Console family
- Obtain any patient medical information to give EMS

## For more information:

Lake Jovita contact:

Joe Castellano: [Josephc4@tampabay.rr.com](mailto:Josephc4@tampabay.rr.com)

Local CPR/AED Training Programs:

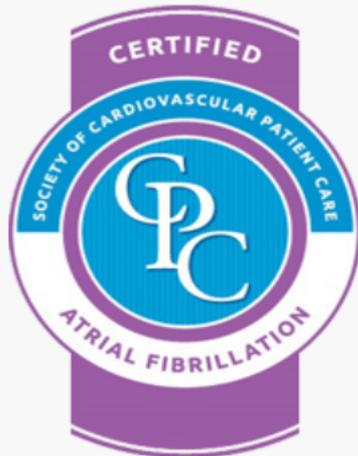
Wayne Ruppert: [Wayne.ruppert@bayfronthealth.com](mailto:Wayne.ruppert@bayfronthealth.com)

“Neighbors Saving Neighbors” Program

Lew Simon: [avline@aol.com](mailto:avline@aol.com)

ReadyAlert

Happy Rideout: [happy@readyalert.com](mailto:happy@readyalert.com)



## A Regional Referral Hospital for Patients With Cardiac Needs

Bayfront Health Dade City is a fully accredited Chest Pain Center by the Society of Cardiovascular Patient Care (SCPC). This accreditation was achieved due to a higher level of expertise for assessing, diagnosing and treating patients who may experience a heart attack. Our door-to-balloon (STEMI) time average is 53 minutes\* which is 37 minutes faster than the 90 minute national goal.

The cardiac crew at Bayfront Health Dade City utilizes diagnostic and interventional cardiology to treat a variety of heart conditions without the need for open-heart surgery. So, when chest pain or other heart symptoms unexpectedly occur, choose Bayfront Health Dade City because it's an Accredited Chest Pain Center that is regionally referred to patients with cardiac needs.

Bayfront Health Dade City has demonstrated its expertise and commitment to quality patient care by meeting or exceeding a wide set of stringent criteria and undergoing a comprehensive review by an accreditation review specialist from the SCPC. Bayfront Health Dade City's protocol-driven and systematic approach to patient evaluation and management allows physicians to reduce time to treatment and to risk stratify patients to decrease their length of stay in the emergency department and the hospital.

### Contact Us

[Bayfront Health Dade City](#)

13100 Fort King Rd. Dade City, FL 33525

(352) 521-1100

<http://www.bayfrontdadecity.com/>

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presentation click on this link:**

**[“Neighbors Saving Neighbors”](#)**

**If web link on previous page does not work, go to:**

**[www.ECGtraining.org](http://www.ECGtraining.org)**

**Once on this web page, scroll down the list of DOWNLOADS and select:**

**[“Neighbors Saving Neighbors”](#)**