Bystander CPR: The Easy Way to Save a Life

CALL

COMPRESS

CLEAR

HeartRescue PROJECT
Outline

• Introduction
• Sudden Cardiac Arrest
• Value – why do we need CPR peer training
• Tips on teaching quality Hands-only CPR and AED use
• Additional training information
• Resources
Introduction

- Out-of-Hospital Cardiac Arrest: Overlooked Cause of Death
- Wide variance in local, regional, economic and ethnic survival rates
- Current data collection sporadic, minimizing motives for systemic improvement

Annual U.S. Deaths

- OHCA (1)
- Lung Cancer (2)
- Stroke (1)
- Breast Cancer (2)
- AIDS (3)

(2) Cancer.org - 2012.
DEFINE: CPR

Cardiopulmonary Resuscitation (CPR) consists of mouth-to-mouth respiration and chest compression. CPR allows oxygenated blood to circulate to vital organs such as the brain and heart. CPR can keep a person alive until more advanced procedures (such as defibrillation - an electric shock to the chest) can treat the cardiac arrest. CPR started by a bystander doubles the likelihood of survival for victims of cardiac arrest.

DEFINE: Bystander CPR Train the Trainer

Bystander CPR can be taught by non-certified instructors to promote the simple steps for providing care in a cardiac arrest. CPR is an easy skill to master and confidence is gained by more frequent practice and awareness. This can be an obstacle to traditional classes for many. Bystander CPR can be frequently and conveniently shared in many situations to fill this gap and increase the number of people willing to perform CPR.
What is SCA?

- SCA is a sudden, abrupt loss of heart function
  - primarily caused by the rapid and/or chaotic electrical activity of the heart known as ventricular tachycardia (VT) or ventricular fibrillation (VF).

- SCA renders a person clinically dead within minutes
  - unless treated immediately with defibrillation or with bystander CPR followed by defibrillation.

- Sudden cardiac arrest is NOT a heart attack
  - which is caused by a blocked vessel leading to loss of blood supply to a portion of the heart muscle.

- SCA occurs because of abnormalities in the heart’s electrical conduction system.
  - However, SCA often occurs secondary to a heart attack.
Heart Attack vs. SCA

- A Heart Attack is damage to the heart muscle from an interruption in oxygen flow which leaves scarring on the heart; scared muscle can interrupt the electrical activity of the heart too.
- A victim having a heart attack will likely be awake and will not require CPR unless they become unconscious.
Heart Attack vs. SCA

- A Sudden Cardiac Arrest is an electrical failure of the heart's specialized electrical system; often this results in Ventricular Fibrillation
- A Sudden Cardiac Arrest victim is unresponsive and not breathing; and requires immediate CPR and AED
- Someone may not have any warning before having a Sudden cardiac Arrest
Risk Factors for SCA

- A family history of coronary artery disease
- Smoking
- High blood pressure
- High blood cholesterol
- Obesity
- Diabetes
- A sedentary lifestyle
- Drinking too much alcohol (more than one to two drinks a day)
- A previous heart attack
- Age —after age 45 for men and age 55 for women
- Being male — men are two to three times higher risk
- Using illegal drugs, such as cocaine or amphetamines
- Nutritional imbalance, such as low potassium or magnesium levels

But SCA can happen to anyone, any where, any time
Common myths about CPR

You can get sued if you perform bystander CPR

Good Samaritan laws will protect you, as long as you act reasonably and prudently.

You can kill someone if you perform CPR incorrectly

CPR will only help a victim of cardiac arrest, whether or not it’s not performed perfectly. It’s better to perform CPR imperfectly than not at all.
You should be certified in CPR to respond in an emergency

While certification is a great option, the person in cardiac arrest won’t mind if you are not certified. But it does help to learn what to do and practice CPR skills.

You need to provide rescue breaths to the victim

Hands Only CPR performed by a bystander has been shown to be as effective as conventional CPR with mouth-to-mouth breaths. Conventional CPR may be better for infants and children, or victims of drowning.
Bottom Line – what can you do??

We need to encourage participation on all levels to increase survival rates.

Learn CPR

On average, less than one-third of out-of-hospital cardiac arrest victims receive bystander CPR, which can double or triple a person’s chance of surviving.

Ask Questions

Encourage local government, public safety agencies and local hospitals to embrace these concepts.
What is the value of peer training?

- Sharing what you are passionate about and making a difference.
- Adaptable and convenient CPR training.
- The confidence of ‘if they can do it, so can I’.
- Sharing tips for making CPR effective and remembering easier.
- Cost effective, time effective and often, just more effective!
- Awareness, awareness, awareness…….Understanding why we are doing what we are doing – Survival Rates!!
Barriers to Performing CPR

- Don’t know how, don’t remember, too many skills and details.
- Mouth to mouth – infection concerns.
- Legal liability.
- Someone else might be better at it.

Remember you need to emphasis that getting the process started is the most important!!
Its easy - TAKE ACTION!!

Two steps to save a life:

1. Call 911
2. Push hard and fast in the center of the chest
Hands-Only CPR is a potentially lifesaving option to be used by people not trained in conventional CPR or those who are unsure of their ability to give the combination of chest compressions and mouth-to-mouth breathing it requires.

Experts now believe that an adult who suddenly collapses due to cardiac arrest has enough air in the lungs and blood during CPR.

Conventional CPR is still an important skill to learn.
• Compress the chest at least 2”
• Allow for complete recoil
• Keep a strong continuous rate
• 100 per minute
• “Staying Alive”
**Steps for CPR**

**Check for responsiveness:** shake the person and shout, “Are you all right?” Rub the breast bone with your knuckles.

**Call 9-1-1** or direct someone to make the call if the person is unresponsive and struggling to breathe, gasping, snoring, or not breathing at all.

**Compress** - Position patient on the floor face up. Place the heel of one hand on the center of the chest and the heel of the other hand on top of the first. Lock your elbows, move your shoulders over the center of the chest, and use the weight of your upper body to “fall” straight downward, compressing the chest at least two inches. Lift your hands slightly each time to allow chest wall to recoil. Compress chest at a rate of 100 per minute. When you tire, take turns with others until paramedics arrive.

If an Automated External Defibrillator (AED) is available, turn it on and follow the AED’s voice instructions. Otherwise, continue chest compressions until paramedics arrive.

**Important:**
Initiate and continue chest compressions even if the patient gasps. Noisy breathing or gasping is not a sign of recovery. It is a sign you are doing a good job.

**Note:**
For unresponsiveness in young children (age 8 or under) and respiratory arrest caused by drowning or drug overdose, follow conventional CPR (30 compressions followed by two mouth-to-mouth ventilations). However, even in those cases, Chest-Compression-Only CPR is better than doing nothing. To learn conventional CPR, a formal training class is recommended.
Training Tools

- Variety of videos that offer step by step training
  - YouTube and PSA’s
- Training can be adapted for times and audience using video, audio or scripted training
- Some videos have additional training options such as choking, child CPR and detailed AED use
- Videos and printed material can be found in additional languages
AED Information

- Stand clear when shocking and analyzing
- Almost no risk if instructions are followed
- If you can use a cell phone you can use an AED
Who is the AED for?

- Adults
- Children
- Infants

AED has voice prompts that can even help with CPR

AED analyzes automatically and determines if there is a shockable rhythm
Why early defibrillation?

Ventricular fibrillation (VF) most frequent rhythm following cardiac arrest

A defibrillating shock is the most effective way to stop VF

VF becomes less responsive to defibrillation with each passing minute
Training Aids

• Manikins: there are a variety out there and any manikin can be used to with the Heart Rescue CPR Training Guide. Keep in mind that with hands only CPR you do not need to worry about replacing lungs and that with larger classes you may want something more portable. Manikins that offer instant feedback like a clicker also help students gain confidence in their skills. Manikins can start at ~$30 and go up from there but some groups have even used pillows with chests drawn on them to help keep costs down.

• Video/Audio – AHA, ARC and other have watch and follow along videos; however a good presentation with some fun music (100 beats) can do just as well in making the learner comfortable and confident.

• Handouts – simple and optional; many people like a small card or magnet with the basic steps. A full sheet of paper will likely just get thrown away.
Variations

• Events or outdoors – use kneepads and audio, create a fun, exciting learning environment and draw people in with the music and visuals. Night to Unite option.

• Schools – use round robin to get large groups through at one time.

• Lunch and Learns – use video and offer hands on separately as participants or finishing lunch.

• Loaner Programs – borrow your kit for ‘CPR Parties’ and at home family training.
Class lengths can vary based on content, venue and questions. Times can be adapted to fit your venue based on video or audio options, presentation or one-on-one.

00:00-05 Welcome and introduction (survivor story if possible)
05:00-08 Information on importance and statistics
08:00-10 Discussion on barriers to doing CPR
10:00-14 Demonstration with tips for better CPR performance (use video if available)
14:00-16 Student practice with feedback and guidance
16:00-19 Student demo with two minutes of compressions (consider audio if available)
19:00-25 AED demo and practice
25:00-30 Questions
Impact your community

- Find partners – may be existing training programs, other support health support groups, public service agencies or healthcare facilities.
- Involve local government – connect training to other health related activities around prevention, active living and emergency response. Consider putting information about training opportunities on community website or during city council meetings.
- Talk about it…. Awareness is key!!
Go Save a life…

• Its OK to be passionate.

• Use real stories (just watch the clock).

• Figure out the hook – it may vary by situation.

• Customize to your audience.

• Find out - ‘what is their reason for learning CPR?’.
Thank You