



## Heart Attack vs. Cardiac Arrest

<ul style="list-style-type: none"> <li>• Primary Cardiac Arrest</li> <li>• Heart stops</li> <li>• Person is <b>unconscious</b></li> <li>• Often no previous symptoms</li> <li>• Person may be gasping or not be breathing at all</li> </ul>	<ul style="list-style-type: none"> <li>• Heart Attack</li> <li>* Blockage in coronary artery</li> <li>* Person is usually <b>conscious</b></li> <li>* Upper body discomfort or pain</li> </ul>
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---Lungs are full of air  
---Blood is full of oxygen

**OFTEN A CARDIAC ARREST OCCURS DUE TO A HEART ATTACK.**

Ann Emerg Med. 1997 Jul;30(1):69-75.

### When to use Chest Compression Only CPR?

<p><b>Chest Compression Only CPR</b></p> <ul style="list-style-type: none"> <li>• Someone who unexpectedly collapses, and is unresponsive.</li> <li>• <b>Vast Majority</b></li> </ul>	<p><b>Traditional CPR (30:2)</b></p> <ul style="list-style-type: none"> <li>• Obvious Breathing Problems:             <ul style="list-style-type: none"> <li>– Drowning</li> <li>– Choking</li> <li>– Drug overdoses</li> </ul> </li> <li>• Children less than 8</li> </ul>
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**WHEN IN DOUBT, DO COMPRESSIONS!**

Berg et al., Circulation. 2010 122: 5685-5705

### What to do:

**Shake & Shout**

**Call 911 & Send Someone for an A.E.D. (if available)**

**Chest Compressions at 100 Per Minute**

### How to Do Chest Compression Only 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 hard and fast (try for 100/min.)
6. Take turns with another person when tired.





### Chest Compressions: Rate and Depth

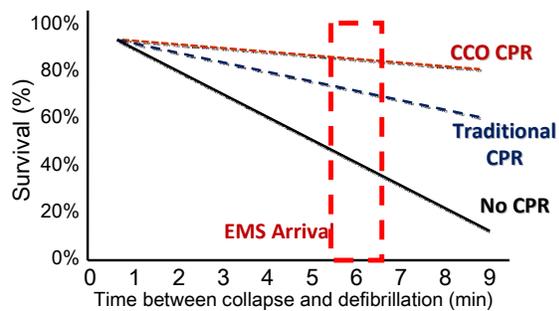
<p><b>At least</b></p> <p><b>100</b></p> <p>Compressions per Minute</p> <ul style="list-style-type: none"> <li>• Allows the heart to refill</li> <li>• Staying Alive!!</li> </ul>	<p><b>At least</b></p> <p><b>2 inches</b></p> <p>in depth</p> <ul style="list-style-type: none"> <li>• After each compression, take all weight off the chest</li> </ul>
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## Are They Breathing?

- Gaspings is a sign of cardiac arrest
- Majority of people with cardiac arrest gasp
- Can be a sign of minimal, but adequate blood flow to the brain.
- **DO NOT** stop chest compressions if they gasp

## Automatic External Defibrillators (AEDs)

### Bystander CCO CPR Improves Chance of Survival from Cardiac Arrest



Nagao, K. Current Opinions in Critical Care 2009  
EMS Arrival Time based on IFR 90% Code 3 Response in FY2008. Standards of Response Coverage 2009.

### What to do:



**Shake & Shout**



**Call 911 & Send Someone for an A.E.D.**



**Chest Compressions at 100 Per Minute**



**Use an A.E.D. When it Arrives**

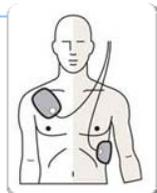
## AEDs

They may look different, but they all function the **Same!**



### Open and Follow Instructions

- Turn AED ON
- Apply Pads to Bare Chest
- Plug in Pads (if necessary)
- Analyze Patient (CLEAR!)
- Push Shock to defibrillate, if directed (CLEAR!)
- Immediately resume CPR



## The Universal Symbol



- Safe
- Easy
- Voice Prompted