WHAT IS AUTOMATED EXTERNAL DEFIBRILLATOR (AED)?

- AED is a portable computerized instrument used to detect and terminate dangerous heart rhythms during sudden cardiac arrest
- AED provides a controlled electric “shock” and restores normal heart rhythm
- High-quality CPR and AED save more lives in Sudden Cardiac Arrest

CONVENTIONAL CPR BY TRAINED RESCUERS

In all children, and others (teens and adults) with a history of respiratory problems, drug overdose and drowning, conventional CPR with compressions followed by breaths (30:2) needs to be given.

- Involves chest compressions and breaths (30:2). One cycle: 30 compressions followed by 2 breaths
- Five cycles are provided in about two minutes
- If there are two rescuers, they should switch their roles every two minutes to avoid fatigue

HOW LONG SHOULD YOU CONTINUE CPR?

- Continue chest compressions until you get help from EMS
- If trained in conventional CPR, continue performing CPR with compressions and breaths (30:2)
- If AED is available, use it quickly

Timely emergency help with hands-only CPR improves the survival rate of any person, be it your family member, friend or a stranger on the street!

BYSTANDER HANDS-ONLY CPR DURING COVID-19 PANDEMIC

- **CPR is an aerosol (droplet)-generating procedure. Safety precautions must be taken for personal protection.**
- **Cover your and victim's mouth and nose with any readily available face cover, cloth/mask before starting CPR.**
- **Thorough handwashing with soap and water should be done after providing CPR help. The CPR technique is the same as given above.**

DISCLAIMERS

- **This is only a brief community-awareness informational pamphlet of bystander emergency help during a witnessed sudden cardiac arrest outside the hospital. The information provided is only a supplement to hands-on training.**
- **Providing bystander help is an individual decision to help the victim of sudden cardiac arrest. The providers need to ensure their own safety first before offering any emergency help. Consider any medical limitations before providing quality CPR.**
- **The authors, organizations or individuals involved with the dissemination of information provided in this pamphlet are not responsible/liable for the actions of any bystander providing emergency CPR help anywhere.**
- **It is important to take a hands-on CPR training course/certification program for providing emergency help as required by the central (federal) and state governmental Good Samaritan laws and other applicable legal guidelines in the country where CPR help is provided.**
- **Covid-19 precautions must be taken while performing bystander CPR during the pandemic**

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COMMUNITY BYSTANDER CPR HELP

“SAVING LIVES” IN SUDDEN CARDIAC ARRESTS WITH HANDS-ONLY (COMPRESSION-ONLY) CPR (CARDIOPULMONARY RESUSCITATION)

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SUDDEN CARDIAC ARREST (SCA)

- Sudden Cardiac Arrest (Stoppage of the Heart) is a Life-Threatening Medical Emergency
- Every year, around the world, hundreds of thousands of people die of sudden cardiac arrest outside the hospitals
- SCA can happen to anybody at any age due to a variety of causes, heart-related or otherwise, sometimes trivial (example: a sudden blunt chest impact by a speedy baseball)
- Currently, there is enough scientific evidence to prove that it's possible to enhance the survival rate of the victims of SCA with immediate high-quality bystander hands-only Cardiopulmonary Resuscitation (HOCPR)

WHAT IS SUDDEN CARDIAC ARREST?

Sudden cardiac arrest is a failure of electrical activity of the heart.

- A person collapses suddenly
- Becomes unconscious with minimal or no breathing
- No pulse
- Prior symptoms such as chest pain, dizziness, palpitations, shortness of breath, vomiting, etc. may or may not be present
- When regular heart rhythm becomes dangerously irregular, the heart stops
- The brain starts to die within a few minutes
- The victim soon dies if no immediate CPR is provided during cardiac arrest

WHAT IS A HEART ATTACK?

A heart attack is due to obstruction of blood flow (block) in the blood vessels of the heart. The heart muscle starts dying quickly.
A heart attack can lead to sudden cardiac arrest and death.

TIMELY BYSTANDER CPR SAVES LIVES AND BRAINS TOO!

Any bystander/nearby witness can offer lifesaving help with the following steps during sudden cardiac arrest:

- Check surroundings for personal safety
- Recognize sudden cardiac arrest
- Call the Emergency Medical Service (EMS) number of the residing country for medical help (example: # 911 in the USA or # 108 in India)
- Start high-quality hands-only CPR immediately
- If available, use an Automated External Defibrillator (AED) soon

TWO SIMPLE STEPS: IF AED IS NOT AVAILABLE

1. Call EMS # for help
2. Start hands-only CPR

- Place the victim on a hard surface
- Push hard and fast in the center of the chest. You may use one or two hands in children
- Rate of compressions: 100-120 times per minute
- Allow full recoil of the chest in-between compressions
- Depth: at least 2 inches (5 cm) in average adults, not exceeding 2.4 inches (6 cm), and about 2 inches (5 cm) in children
- Minimal interruptions during chest compressions

HOW DOES HANDS-ONLY CPR HELP?

- Immediate high-quality hands-only CPR provides needed blood supply to the body for survival and may minimize brain injury
- A simple hands-only CPR may be as effective as conventional CPR in the initial few minutes in the majority of teen and adult SCA (with exceptions)

Hands-only CPR is recommended in teens and adults without previous respiratory problems in the initial few minutes after witnessed cardiac arrest. In most of the teens and adults, there may be enough oxygen in the body for a few minutes after SCA for survival. That's why chest compressions (100-120/min.) are more important than delivering breaths in the initial minutes until the arrival of EMS

IF DEFIBRILLATOR (AED) IS AVAILABLE (FOR BETTER SURVIVAL OUTCOMES)

- Call EMS# for help
- Start hands-only CPR
- Use AED quickly