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You don't have to be a doctor to save a life... Simple-to-use technology makes it possible

You may be able to save the life of a sudden cardiac arrest victim by using an Automated External Defibrillator (AED) to deliver an electrical shock to the heart muscle, allowing it to regain spontaneous circulation and pump blood properly again.

Today's advanced technology makes it easy to do. Voice-activated instructions guide you through the process.

You must always be aware

Without warning, your life, a loved one's life, or the life of a colleague can be cut short by sudden cardiac arrest (SCA). It can strike anyone, anywhere, at anytime – regardless of age or medical history. With a defibrillator, you can make a difference. You can be a local hero by saving a person's life.

A life-supporting initiative

Regrettably, most people do not know how to respond to SCA. Valuable time is often lost waiting for professional medical help to arrive. A shock to the heart must be administered within 10 minutes or death can occur¹. Our goal is to raise awareness that a life can be saved by someone just like you. We want you to leave here with a new found understanding about what sudden cardiac arrest is and how important it is to have AEDs available in community and industry locations. Because that knowledge gives you power to save a life. So take a moment. Learn a little about sudden cardiac arrest, cardiopulmonary resuscitation and the remarkable ability of today's defibrillators.

Defibrillation saves lives.

Remember this...

Every 60 seconds of delay before a victim is defibrillated, reduces the chance of their survival by 7% to 10%

¹ "Out-of-Hospital Arrest – The Solution is Shocking" by David J. Callans, M.D. Volume 351:632-634, August 12, 2004

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Surviving sudden cardiac arrest

There is a 75% chance with immediate defibrillation¹

Did you know that the average person with a basic understanding of CPR (Cardiopulmonary Resuscitation) and access to an Automated External Defibrillator (AED) can save a life? It's true. The real challenge is getting the defibrillator into the hands of someone at the scene - fast.

This specific initiative, sponsored by Philips Healthcare, is designed to raise awareness of the life-saving capacity of every citizen when they are provided access to the latest technology.

A people focused - healthcare simplified solution.

Why do people die?

The problem exists that while sudden cardiac arrest (SCA) is survivable, life-saving defibrillators are often not immediately available. The optimum treatment for SCA is immediate bystander CPR (combined chest compression and rescue breathing) plus electrical defibrillation. The two are critical together.

Right now, only 1 person in 20 currently survives SCA outside the hospital². Why? A major reason is that the heart is not defibrillated in time. Unless a normal heartbeat is restored quickly, chances of survival are severely reduced.

How can more lives be saved?

The solution appears simple.

Educate you, the public, about SCA - its causes and treatment, while at the same time we at Philips Healthcare work to educate stores, companies, local governments and community organizations that lives can be saved by placing Automated External Defibrillators (AED) in their facilities.

Your quick recognition of an emergency situation must set in motion a 'chain of survival' sequence. By providing assistance at the very earliest moment, you can offer the victim the best opportunity for recovery.

1. Call emergency services immediately
2. Start CPR
3. Defibrillate early
4. Get advanced life support

When you and others like you, have a clear understanding of sudden cardiac arrest, cardiopulmonary resuscitation, and defibrillation, you can spread this knowledge to others. Doing so may increase the chance of survival for SCA victims. This website is committed to providing that clarity.

Remember this...

There is a 75% chance of survival with immediate defibrillation.

¹ Handley, Koster et al., "European Resuscitation Council Guidelines for Resuscitation 2005: Section 2. Adult basic life support and use of automated external defibrillators" Volume 67, S. 25 - S. 37, December 2005

² Handley, Koster et al., "European Resuscitation Council Guidelines for Resuscitation 2005: Section 2. Adult basic life support and use of automated external defibrillators" Volume 67, S. 7 - S. 23, December 2005

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Sudden cardiac arrest is a treatable condition

To define sudden cardiac arrest, we must understand how it differs from a heart attack.

A heart attack is caused when blood flow to the heart is blocked due to a clot in one of the coronary arteries. Sudden cardiac arrest (SCA) occurs when the heart malfunctions and suddenly beats irregularly.

Think of it as the difference between a plumbing and an electrical problem. The heart attack is a plumbing issue where blood flow to the heart is restricted. SCA is a short circuit of the electrical system which interrupts the heart's regular rhythm and keeps it from pumping blood through the body.

A short circuit in the heart

An adult heart beats 60 to 100 beats per minute. This is called 'normal sinus rhythm'. This very regular pattern feeds oxygen rich blood to the entire body and is managed by the sinoatrial (SA) node and the atrioventricular (AV) node. Electrical impulses leave the SA node and travel to the AV node. In concert, these nodes maintain normal sinus rhythm.

Similar to the electrical wiring in your home, there can be a short circuit. When this happens, there is an abrupt loss of heart function - sudden cardiac arrest. Instead of pumping regularly, the heart quivers uncontrollably and blood is not circulated. This is called ventricular fibrillation.

Death follows unless emergency treatment is provided quickly. The only definitive way to return the heart to its regular normal sinus rhythm is by performing cardiopulmonary resuscitation (CPR) and applying an electrical shock from an Automated External Defibrillator (AED).

Signs, symptoms and diagnosis

SCA can strike anyone, anywhere, at anytime – regardless of age or medical history. Recognizing the difference between a heart attack and SCA is critical. A heart attack victim, while in extreme pain, remains awake and aware. Sudden cardiac arrest causes the victim to lose consciousness immediately and collapse. There are no visible signs of life:

- no regular pulse
- no breathing

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Treatment

The best chance for SCA survival is to begin cardiopulmonary resuscitation (CPR) right away. CPR keeps enough oxygenated blood flowing to the brain until the normal heart rhythm is restored with an electric shock from an AED - a defibrillator. Without defibrillation, death can occur within 10 minutes.

Emergency medical responders can provide that electrical shock, however they may take too long to arrive. If you are the nearest bystander, you can apply the shock. Today's AEDs are easy-to-use. Voice-activated instructions guide you through the process and the defibrillator will not deliver a shock unless one is appropriate. You cannot harm the victim.¹

Remember this...

Passing an electrical shock through the heart can restore its normal rhythm.

¹ Jorgenson DB, Skarr T, Russell JK et al., AED use in businesses, public facilities and homes by minimally trained first responders, Resuscitation 59 (2003) 225-233

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Defibrillation

The only definitive treatment for sudden cardiac arrest

When the electrical system of the heart malfunctions, the heart quivers uncontrollably (ventricular fibrillation). This is sudden cardiac arrest (SCA). During SCA, no blood is pumped to the brain or body. Quick action must be taken to prevent death.

Defibrillation is the process by which an electric shock is given to the heart to return it to 'normal rhythm'.

What is a defibrillator?

A defibrillator is the device that generates an electrical shock to the heart muscle to reverse the effects of ventricular fibrillation. Specifically, an Automated External Defibrillator (AED) is the type of defibrillator used on-site during an SCA. These portable defibrillators are the only proven way to resuscitate a person, outside of the hospital environment, who has had a cardiac arrest and who is still in persistent ventricular fibrillation.

You may have seen AEDs displayed in public areas such as airports, community buildings and corporate offices. They are ready for immediate use by people just like you.

How does it work?

It is important to note that cardiopulmonary resuscitation (CPR) must be provided along with defibrillation to treat an SCA victim. But CPR alone may not convert the heart to its proper rhythm. Typically, CPR is performed first and then a shock from the defibrillator is applied.

Ease of operation is characteristic of today's advanced defibrillation technology.

Anyone can do it, simply. Audio instructions are clearly spoken by the machine to coach you through the process. No prior medical knowledge is required. The onboard computer will assess the condition of the victim and determine if a shock to the heart is necessary. The victim cannot be harmed accidentally¹. If a shock is not required, the activation button will not work.

Where do I find one?

The chaos of an emergency situation can be overwhelming for anyone. You may understand how defibrillators work, but where do you find one when it's needed?

AED sign International Liaison Committee on Resuscitation (ILCOR) has developed a universal sign indicating the presence of an Automated External Defibrillator. It is designed to assist in rapidly identifying the location of an AED in public places.

Finding and using a defibrillator as fast as possible can improve chances of survival for a victim of sudden cardiac arrest.

You can save a life, when you easily locate an AED.

Remember this...

Early defibrillation is one of the most important steps in the complete chain of survival. The four steps are:

1. Call emergency services immediately
2. Start
3. Defibrillate early
4. Get advanced life support

¹ Jorgenson DB, Skarr T, Russell JK et al., AED use in businesses, public facilities and homes by minimally trained first responders, Resuscitation 59 (2003) 225-233

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Facts & Figures

5% chance of survival without immediate defibrillation¹

Sudden cardiac arrest is not a heart attack. Typically, a heart attack victim is alert and awake while experiencing pain due to restricted blood flow to the heart. A sudden cardiac arrest (SCA) victim becomes unconscious in an instant and collapses to the ground, suffering from irregular heart rhythm called ventricular fibrillation (the heart muscle quivers).

While a heart attack victim risks death, a sudden cardiac arrest victim has a greater chance of immediate death, unless the heart is shocked promptly.

Consider these statistics:

- More than 70% of SCA happen outside a hospital
- Only 1 person in 20 currently survives an SCA outside the hospital²
- Over 700,000 people die from SCA every year in Europe¹

The enemy to survival is time:

- For every minute that defibrillation is delayed, the chances of surviving SCA decreases by 7% to 10%³
- Death from SCA may occur within 10 minutes
- Emergency medical professionals take an average of 9 minutes to reach an SCA victim

Today, there is overwhelming evidence that defibrillation, in combination with cardiopulmonary resuscitation (CPR), is the definitive treatment for victims of SCA. Defibrillation shocks the heart. Passing an electrical shock through the heart can restore it to a normal rhythm.

Defibrillation works:

- There is a 75% chance of survival with immediate defibrillation¹
- Fast access to defibrillation could increase chances of survival in 3 out of every 4 SCA cases¹
- Defibrillation is the only effective intervention to treat cardiac arrest (specifically ventricular fibrillation)

While CPR and defibrillation greatly improve the chance of surviving SCA, getting treatment to the victim in a timely manner is a challenge. Saving a victim from death due to SCA depends on immediate bystander intervention.

Only a broader understanding of SCA and its treatment will change the tide. You can help.

Remember this...

50% of people who experience a SCA reported no prior symptoms of heart disease

¹ Handley, Koster et al., "European Resuscitation Council Guidelines for Resuscitation 2005: Section 2. Adult basic life support and use of automated external defibrillators" Volume 67, S. 25 - S. 37, December 2005

² Handley, Koster et al., "European Resuscitation Council Guidelines for Resuscitation 2005: Section 2. Adult basic life support and use of automated external defibrillators" Volume 67, S. 7 - S. 23, December 2005

³ "Out-of-Hospital Arrest – The Solution is Shocking" by David J. Callans, M.D. Volume 351:632-634, August 12, 2004