Lay rescuers can use computerized devices called AEDs to deliver a shock to victims of VF cardiac arrest. The rescuer attaches the AED to the victim with adhesive pads or electrodes. The AED records and analyzes the victim's ECG rhythm, informs the rescuer if a shock is needed, and provides voice and audio prompts to guide the rescuer through all steps of AED use. The AED computerized algorithms that are used to analyze the victim's heart rhythm are accurate. AEDs will deliver a shock only when VF or its precursor, rapid ventricular tachycardia, is present and will not deliver a shock to a person with a normal heart rhythm.

The success of the actions of rescuers at the scene of an SCA is time critical. Several studies have documented the effects of time to defibrillation and the effects of bystander CCR on survival from SCA. For every minute that passes between collapse and defibrillation, survival from witnessed VF SCA falls 7% to 10% if no CCR is provided. When bystander CCR is provided, the fall in survival is more gradual and averages 3% to 4% per minute from collapse to defibrillation. CCR can double or triple survival from witnessed SCA at any interval to defibrillation.

Defibrillation *is the only effective therapy for ventricular fibrillation. For each minute that passes without CCR and defibrillation, the chance of survival decreases* ***7% to 10%****.*

For information on AEDs and CCR training

Give us a call!

608-884-3327

Edgerton Fire Protection District
621 N. Main St.
Edgerton WI 53534
608-884-3327

For more information visit:
www.edgertonfire.com

Edgerton Fire Protection District

Start the Heart Program

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What's public access to defibrillation?

Public access to defibrillation (PAD) means making AEDs available in public and/or private places where large numbers of people gather or people who are at high risk for heart attacks live.

What is an AED?

AEDs are very accurate and easy to use. With a few hours of training, anyone can learn to operate an AED safely. There are many different brands of AEDs, but the same basic steps apply to all of them.

How much does an AED cost?

The price of an AED varies by make and model. Most AEDs cost between $1,500–$2,000.

More people can survive Sudden Cardiac Arrest (SCA) if bystanders act quickly to start the Chain of Survival. The Chain of Survival consists of the actions needed to treat a life-threatening emergency.

The adult Chain of Survival has 4 vital links:

Early Access

- Recognizing that an emergency exists and quickly calling 911.

Early CCR *"Cardiocerebral Resuscitation"*

- Starting CCR immediately after cardiac arrest. CCR circulates oxygen-rich blood to the brain and heart. It buys time for the victim until defibrillation can be performed.

Early Defibrillation

- Defibrillating the victim as soon as the AED arrives. This is most effective within 3 to 5 minutes.

Early Advanced Care

- Trained healthcare providers arriving quickly to give advanced care.

With a strong **Chain of Survival** in every workplace and community, more lives can be saved.

In most cases of cardiac arrest, the critical link is **Early Defibrillation.**

Bystanders can now perform 3 of the links in this chain. Bystander recognition of the emergency and EMS activation are critical first steps in response to an SCA, ensuring that basic and advanced life support providers are dispatched to the site of the arrest. Within the city, the time interval from collapse to the arrival of EMS personnel is 7 to 8 minutes or longer. This means that the victim depends on the actions of bystanders and local rescuers to perform the first 2 or 3 links in the chain of survival during the first minutes after SCA.

Bystanders need to provide immediate CCR for victims of SCA. CCR provides blood flow to the heart and brain. In addition, CCR increases the likelihood that a shock delivered by a defibrillator will terminate the ventricular fibrillation (VF) and that the heart will resume an effective rhythm after defibrillation. These effects of CCR appear to be particularly important if shock delivery does not occur for >4 minutes after collapse.
Defibrillation does not "restart" the heart; defibrillation stops VF and allows the heart to resume a normal rhythm. In the first few minutes after defibrillation, the heart rhythm may be slow and the heart may not pump blood effectively. CCR may be needed for several minutes after defibrillation until adequate heart function resumes.