

AED FAQs

The purpose of AED is for cardiac arrest, specifically ventricular fibrillation and tachycardia and is only to be used if victim is unconscious, pulseless and not breathing. The machine is very self-explanatory. First steps is have someone call 911. Opening the cabinet sends a silent alarm to BYU dispatch, but it is always best to call as well, because the alarm might not go off for some reason. STAY CALM- it's important to be quick and hurry, but you're not going to do any good if your rush causes you to make mistakes. You don't need to be CPR certified to use this machine, it will guide you exactly what do to.

What is ventricular fibrillation?

Ventricular fibrillation is the fatal rhythm that causes sudden cardiac arrest. The heart instantly goes from a normal heart rhythm to a chaotic rhythm called ventricular fibrillation. When the heart goes into VF, the pulse and blood pressure is instantly lost and the person loses consciousness in a few seconds. The only effective treatment is an electric shock across the chest and through the heart. A shock, if delivered in time, can convert the fatal rhythm of VF back to a normal heart rhythm. An AED is a device that automatically analyses the heart's rhythm and can deliver a shock if VF is present.

What is the relation of CPR to AED?

CPR cannot convert VF into a normal rhythm (only an electric shock can do this) but CPR can circulate a small trickle of oxygenated blood to vital organ and thus slow the dying process until an AED arrives. Thus CPR buys time until the AED arrives to deliver a shock.

How soon must I attach an AED to a person in cardiac arrest?

The sooner the better. The chances of a successful defibrillation using an AED falls by about 7% to 10% with each passing minute.

Why do I call 911 before attaching the AED?

Clearly if there are two witnessed to the cardiac arrest, one should call 911 while the other retrieves and attaches the AED. If there is only one rescuer, that person should call 911 in order to get EMS personnel responding to the scene. It is worth the extra minute to get help on the way. The emergency operator can also remind you how to use the device and even coach you through CPR if you forgot. Even if you are successful with the AED, EMS personnel will have to administer medications (to prevent a relapse into VF) and administer oxygen or even place a breathing tube down the person's windpipe.

When I attach the pads to the person in cardiac arrest, how long does it take for the AED to work?

The devices vary somewhat but in general once the pads are attached, the device takes 5-10 seconds to analyze the heart's rhythm and another few seconds to charge itself up.

If I use an AED do Good Samaritan laws cover me?

Yes, so long as you use it properly.

What is the cost of an AED?

Currently AEDs sell for \$1200 to \$3000.

How long do batteries last?

It varies by device but in general batteries last 4-5 years.

How long are the pads good for?

It varies by device but in general they are good for 2-3 years.

What if the AED doesn't give a shock?

Not every cardiac arrest is caused by VF. Approximately one third of the time the heart will not be in VF and therefore the AED will not deliver a shock. In this case it will advise the rescuer to check the patient and begin CPR.

What happens if I am touching the person when the AED shocks?

Probably nothing. You may feel a slight tingle. Try to not touch the person when the shock is delivered. If you should have latex gloves available, this should also protect you even if you are touching the patients chest at the moment of shock.

What if the victim is wet or lying on a wet surface?

Try to dry the chest with a towel before applying the pads. Defibrillation is most safely performed on a dry surface. The risks to rescuers and bystanders associated with defibrillating on a wet surface have to be balanced against the risk to the patient of delaying defibrillation. If the patient cannot be safely and quickly moved to a dry surface, as far as possible all bystanders should move off the wet surface. Anyone that must be on the wet surface should avoid direct contact with the patient, and should avoid contact between their body - particularly above their waist - and the wet surface, as far as possible. Wearing latex gloves will also reduce the likelihood of the rescuer being shocked in the event the rescuer is touching the patient at the moment of defibrillation.

What if the chest is hairy and the pads won't stick to the skin?

You might keep a disposable shaver with the AED just for this purpose.

Can the AED accidentally shock someone who doesn't need a shock?

Not likely. The AED is designed to only shock VF. It will not shock any other heart rhythm. Nevertheless, AEDs are not perfect and in 1% of cases it may shock a rhythm other than VF. That's why it should only be attached to a person who is unconscious and has collapsed.

What if the victim has a pacemaker?

Ignore the presence of the pacemaker.

What if the victim has an implanted defibrillator?

The AED is not needed for someone who has an implanted defibrillator. However, if the

implanted defibrillator is not firing, you can consider attaching an AED (it is possible the implanted defibrillator is not working properly). The AED will not harm the implanted defibrillator.

What do I do if the AED works and the victim starts to wake up?

That's great. Unless the person tries to sit up, place the victim on his or her side so saliva can drain out without blocking the airway.

How do I know if the shock was delivered?

Some devices say "shock delivered" but you will also know because you will see the chest's muscular twitch in response to the electric shock.

Do I have to place the pads in the exact spot shown in the diagram?

As close as possible. When the pads are in the incorrect location the shock is less effective.

What if the woman has a bra on?

Lift the bra up over the breasts and let it bunch up around the neck, then attach the pads.

Will an AED save everyone in cardiac arrest?

No. Many factors such as whether the collapse was witnessed, the heart's rhythm, and the underlying condition of the victim determine whether the victim lives or dies.