

To help save lives, the Heart and Stroke Foundation and the Province of British Columbia are making Automated External Defibrillators (AEDs) available in public places where there is a risk someone can suffer a sudden cardiac arrest.

Sudden cardiac arrest strikes suddenly and affects people of all ages. Over 2000 British Columbians die from sudden cardiac arrest every year.

Sudden cardiac arrest is different from a heart attack. A heart attack occurs when one or more of the arteries to the heart are blocked and the heart does not receive enough blood.

In contrast, sudden cardiac arrest occurs when the heart's electrical system malfunctions and the heart beats irregularly and dangerously fast. The ventricles begin to quiver and can no longer pump blood from the heart to the rest of the body.

In the first few minutes, blood flow to the brain is reduced so drastically that the victim loses consciousness. Without immediate help, a victim of sudden cardiac arrest will suffer brain damage within three minutes and after twelve minutes it's unlikely they'll survive.

Emergency treatment includes cardiopulmonary resuscitation (CPR) and defibrillation, or an electric shock to the heart.

An Automated External Defibrillator (AED) is a device that analyzes the heart's electrical activity and determines if a shock is needed. If needed, the device safely delivers the shock to the victim.

Through the Public Access to Defibrillation Program, the Heart and Stroke Foundation is working to ensure defibrillators are readily available to victims of sudden cardiac arrests in public places, including recreation and community centres, swimming pools, arenas, busy parks and beaches and secondary schools that serve as community centres in the evenings and on weekends.

# The Cardiac Chain of Survival



Early defibrillation is a key link in the Chain of Survival™. The Chain of Survival™ consists of a series of seven links that give the victim of a medical emergency the best chance of living:

#### Chain of Survival™

All links in the Chain of Survival<sup>™</sup> are important to reduce death and disability from heart disease and stroke. The Chain of Survival<sup>™</sup> is only as strong as its weakest link. The success of each link depends on the link immediately before and after. Recognizing the warning signals of cardiac arrest, doing CPR and reacting by calling 9-1-1 (or other emergency response number), helps to get an AED to the victim quickly and reduce delay to defibrillation.

### The need for publicly accessible defibrillators

Unfortunately in Canada, early defibrillation is seldom available to victims in public places. Public AED placement is sparse, and the median Emergency Medical Services response time in BC is 9.3 minutes. By placing AEDs in public spaces across the province we can strengthen the Chain of Survival and help up to 75% of sudden cardiac arrest victims survive. Sudden cardiac arrest victims who receive CPR and early defibrillation have shorter recovery times and are more likely to lead healthy, productive lives. Up to 40,000 cardiac arrests occur each year in Canada. That's one cardiac arrest every 12 minutes.

Sudden cardiac arrest doesn't discriminate. It can strike anyone at any time in any place. Even people who are young, healthy and fit can succumb to cardiac arrest, and without a shock from an AED, they are unlikely to survive.



Almost all of cardiac arrest victims will die without an electric shock to restart their heart. Survival rates fall by 7-10% for every minute that passes without defibrillation.

Public access to AEDs will help save lives.



# **Overview of the BC PAD Program**

Through the PAD Program, the Foundation, in partnership with the BC Ambulance Service, plans to donate 650 AEDs over three years to recreation centres, arenas, pools, community centres, libraries, senior centres, busy playing fields, parks and beaches, and secondary schools that are open to the community evenings and weekends.





AED Placement

The Program will donate one or more AEDs to every municipality in British Columbia, depending on population size. The Heart and Stroke Foundation is working with local governments to identify priority locations. These locations are places where large numbers of people gather on a regular basis and/or emergency response times are longer than it takes to save a victim of sudden cardiac arrest.



The PAD program will help people become familiar with AED use and will teach them how easy it is to open an AED and follow the voice prompts during a rescue. People who receive AED training will also learn bystander CPR.

All venues will receive an orientation to their AED and learn how to respond to a sudden cardiac arrest from a health care provider.



A priority of the PAD Program is to link with 9-1-1 dispatch to inform callers if an AED is available at their location. The registry will serve as a database system that tracks AED locations. The registry will also send maintenance reminders and collect data to help refine the PAD program.



## Awareness and Education

To support community AEDs, the HSF is implementing a public awareness campaign about sudden cardiac arrest and AEDs.

The Foundation is also standardizing installation and signage, making it easy to recognize AEDs.



Agreements between the Heart and Stroke Foundation and the AED venue will ensure PAD Program AEDs are properly installed and maintained.



Trained medical professionals will be responsible for handling and analyzing AED data after a sudden cardiac arrest, debriefing venue staff and others following an event, and consulting with venue staff about the AED, as required.



An Automated External Defibrillator (AED) is a safe and easy-to-use portable device used to deliver lifesaving electric shocks to sudden cardiac arrest victims. An AED will only shock a shockable heartbeat. A bystander or trained professional can simply attach the pads to a person's chest and push the button when alerted by the AED. The AED demonstrates what to do throughout every step using voice prompts and on-screen instructions, including how to perform CPR. The Heart and Stroke Foundation is advocating to government to establish legislation:

- requiring AEDs to be placed in specific public locations
- requiring registration of public AEDs

For more information, please contact the HSF at 1-888-473-4636 or advocacy@hsf.bc.ca