

The Case for Automated External Defibrillators (AED) at Golf and Country Clubs

According to the Heart & Stroke Foundation of Canada as many as 45,000 cardiac arrests occur each year and as many as 85% of all cardiac arrests occur in homes and public places. ¹

We all know the demographics story which says that the population in Canada is getting older. According to the Canadian Association of Retired Persons (CARP) there are 4.7 million Canadians over the age of 65 and of this number 56% are women. It is even more staggering to note that of the 34 million Canadians, 14.5 million are over the age of 45.

Today there are more people over 50 than under 30 and we can be sure that these numbers are even more heavily skewed at golf clubs around the country.

With age comes an increased risk towards heart disease and stroke with the majority of strokes occurring in people over the age of 65. Nine in 10 Canadians (90%) have at least one risk factor for heart disease or stroke which include smoking, high blood pressure, diabetes, alcohol and obesity to name a few.

Sudden Cardiac Arrest (SCA) Explained

Sudden Cardiac Arrest (SCA) occurs when the heart unexpectedly (suddenly) stops beating. It can happen at any age however the majority of victims are over the age of 40.

In SCA the heart no longer pumps blood to the brain and brain cells begin to die within minutes and death soon follows. CPR can help maintain blood flow but unless defibrillation is performed quickly, survival is unlikely.

SCA is the most prevalent medical emergency today however it does not have to be fatal.

What is an AED?

An Automated External Defibrillator (AED) is a device used to “shock” the heart back into normal rhythm. They are very complex portable machines that are able to monitor and analyze the hearts’ electrical activity and determine if a shock might be effective.

The device uses adhesive pads connected by wires to monitor the persons heart rate and rhythm. Most AED’s include step by step on screen instructions for users who find themselves required to use the device with little or no training. Of course, your staff (and hopefully members too) should be familiar with the device before an emergency happens.

If required the AED will instruct the user to press a button that will deliver a controlled shock to the victim's heart. The shock is meant to stop the heart and allow it to resume at a normal rhythm however CPR is often required in concert with the AED until an ambulance arrives.



One major challenge for golf clubs is the fact that their employees may go months or even years without witnessing SCA or operating an AED. For this reason alone formal training together with ongoing reviews is critical for all club employees.

The Importance of a Quick Response

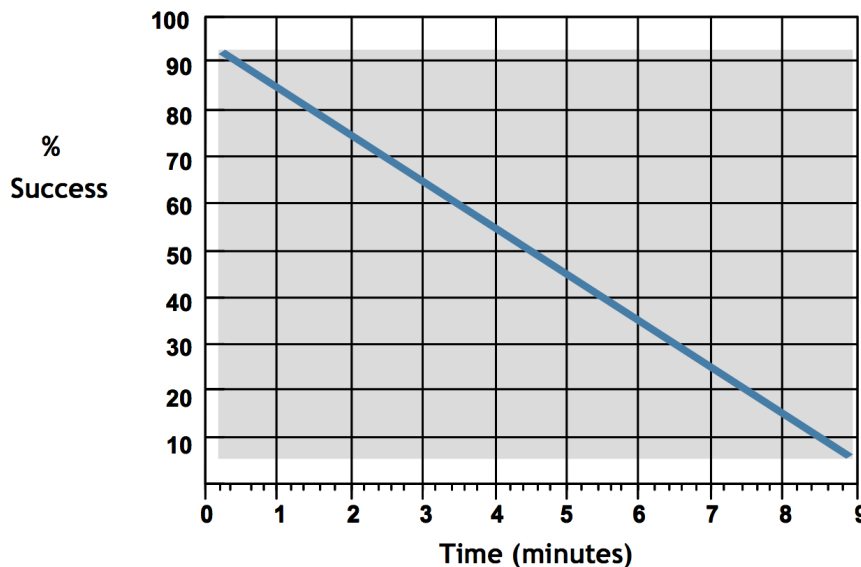
When an AED is immediately available, the chance of survival can increase by 75% or more over CPR on its own.

The downside to AED's is that there is a very limited window of opportunity to use them in as the chance of success is reduced by nearly 10% for every minute that passes (see chart below).

For every 1 minute delay in defibrillation, the survival rate for a cardiac arrest victim decreases by 7 to 10%².

This fact is even more critical to golf clubs which at any given time may have guests and members spread across 100 acres of golf course.

Resuscitation Success vs. Time



Adapted from text: Cummins RO, 1998. *Annals of Emergency Medicine*. 18:1269-1275

Location, Location, Location...

Location of AED's is absolutely critical. In order to be effective they must literally be within arms reach which is a considerable challenge for large sprawling clubs. Having an AED in the Clubhouse and Pro Shop is only the beginning, placing them in well marked protected areas on the golf course may mean the difference between life and death.

Buying the units is only the beginning. Both the pads and batteries must be replaced over time and some units have different replacement cycles for these parts which means that the golf club must know their equipment and track the refresh dates for each unit.

Conclusion

As the population continues to get older, the average age at golf and country clubs is bound to increase at a faster rate simply due to the demographics of the sport. With this in mind AED's have become a necessity at every club in Canada as they are the single best defense against SCA and are proven to save lives when used in conjunction with CPR.

Putting an AED program in place at your golf club should be a priority for all general managers and owners. In our opinion the question of liability will focus on the existence of an AED program and not on how they were used at the time of an emergency. Having operating units in place along with a trained staff is the best way that a golf club can protect itself and more importantly its members and their guests.

An investment in AED equipment and training is an investment in the future success of your club.

Approved AED Vendors in Canada

The following companies have Health Canada approval for the sale of AED products in Canada and was sourced from The Heart & Stroke Foundation. Signature Risk Partners encourages you to contact each company and describe your specific needs in order to find the right fit for your club. This list is provided for your convenience and is in no way conclusive. There may be other approved vendors that we are not aware of.

Defibtech

Manufacturers of Lifeline™/Revive™
SOS Emergency Response Technology
160 Tycos Drive
Toronto, Ontario M6B 1W6
416-789-7689
www.defibtech.com

Philips

Manufacturers of HeartStart
281 Hillmount Road
Markham, Ontario L6C 2S3
1-800-291-6743
www.medical.philips.com/heartstart

HeartSine Technologies

Manufacturers of Samaritan PAD
(SAM PAD) AED
Rescue 7 Inc.
245 Riviera Drive
Markham, Ontario L3R 5J9
905-474-0770
www.rescue7.net

Physio-Control/Medtronic of Canada Ltd.

Manufacturers of LIFEPAK AEDs
6733 Kitimat Road
Mississauga, Ontario L5N 1W3
1-800-268-5346
www.physio-control.com

Zoll Medical Corporation
Manufacturers of AEDs
1750 Sismeth Road
Unit 1
Mississauga, Ontario L4W 1R6
1-866-442-1011
www.zoll.com

Licensing information about specific AED's may be checked through Health Canada's Medical Devices License Listing (www.mdall.ca).

For More Information

For more information on starting an AED program, download the Heart & Stroke Foundation document titled, Automated External Defibrillation: Whose life will you need to save? Which can be found at the Heart & Stroke website (www.heartandstroke.com).

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¹ Vaillancourt, C. et al. ([Cardiac Arrest care and emergency medical services in Canada](#)). Canadian Journal of Cardiology, Vol 20 No x 2004.

² Larsen MP et al. Predicting survival from out-of-hospital cardiac arrest: a graphic model. Annals of Emergency Medicine. 1993; 22: 1652-1658.