



News Toronto & GTA

Teens getting heart smart

Students embrace CPR and defibrillator training

By IAN ROBERTSON, TORONTO SUN

February 24, 2010

Ontario legislators had shockingly good experiences Wednesday when Grade 9 students demonstrated their CPR and defibrillator rescue training at Queen's Park.

Before the 14-and 15-year-olds from Toronto showed their skills, education minister Leona Dombrowsky lauded mandatory courses that have given more than one million Ontario students the life-saving training.

"We are empowering youth with the skills and knowledge to save lives," Dombrowsky said. "Today will be a valuable learning opportunity for MPPs."

She credited the Advanced Coronary Treatment (ACT) Foundation, which started CPR training projects 11 years ago in Toronto and Ottawa schools, then expanded with government, corporate and community funds to include training on Automated External Defibrillators (AEDs).

The portable devices, which provide electric shocks to activate a patient's stopped heart, are installed in many public buildings.

"It's always good to learn it in case someone at home gets hurt," Weston Collegiate Institute student Akash Chauhan, 14, said. "It's always good to help people, that's my motivation."



Schoolmate Jean Phan, 15, said she likes the audio-training devices, which are “self-explanatory. They have all the instructions and photos to help you.”

Research shows most adults who use the equipment are paramedics, ACT executive director Sandra Clarke said. “The average citizen is too afraid.”

She said training teens — “who are used to technology and are not afraid” — has enabled and encouraged a whole generation to help someone in distress.

Her charity’s partners, including the Ontario Trillium Foundation and pharmaceutical firms, “have provided a large portion of the funds,” she said. “But we are still fundraising in communities across Ontario.”

About 30% of Toronto high schools and 20% across Ontario have the ACT Automated External Defibrillator training program, Clarke said, and because of generous donations from the Mikey Network and other community partners, about 77% of Toronto high schools have AEDs.

ACT, which talked the Alberta and Manitoba governments into CPR training in high schools earlier this decade, is lobbying to have all provinces follow suit, Clarke said.

This device could save your life



An automated external defibrillator (AED) is used in cases of life threatening cardiac arrhythmias which lead to cardiac arrest. Unlike regular defibrillators, an AED requires minimal training to use. It automatically diagnoses the heart rhythm and determines if a shock is needed. Electrical shocks are used to stop the arrhythmia and allow the heart to reestablish an effective rhythm.

HOW TO USE AN AED

This is only a brief outline on how an AED works. It is not meant to substitute complete AED training.

Call 911.

Begin CPR if victim is not breathing.

Ask bystander to take over CPR.
Uninterrupted CPR is important in increasing the recovery rate of cardiac arrest patients.

Make sure AED pads are plugged into AED.

Attach pads to bare chest.

Right upper chest (above nipple and left of the sternum).
 Left chest/side, just below the nipple and pectoral muscle.
Note: CPR should not be interrupted.

Turn on the AED.

Stop CPR. Ensure that nobody is touching the victim and push the "analyze" button. The AED will analyze heart rhythm.

If you get a "no shock" message, it can mean one of three things: There is a pulse, the victim has now regained a pulse, or the victim is not in a "shockable" rhythm (i.e. not ventricular fibrillation).

If a shock is required, move everyone away. Press the shock button.

Immediately following the shock, begin CPR for approximately 2 minutes.

Analyze the victim's rhythm after CPR.
 The AED will indicate if another shock is needed.



ELECTRICAL PATHWAYS IN THE HEART

Normal



Normal heart rhythm

Arrhythmia



Ventricular fibrillation

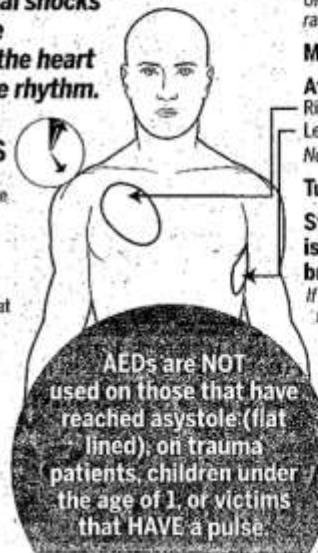
In cardiac arrhythmia, the heart is active, but in a life-threatening, dysfunctional pattern (called Ventricular fibrillation or V-Fib):

Heart pumps too fast
 OR
Heart pumps chaotically

3-5 MINUTES

Irreversible brain/tissue damage can occur by this time frame to a person in cardiac arrhythmia

For every minute that a person in cardiac arrest goes without being successfully treated (by defibrillation), the chance of survival decreases by **10%**



AEDs are NOT used on those that have reached asystole (flat lined); on trauma patients, children under the age of 1, or victims that HAVE a pulse.