

MINNEAPOLIS FIRE DEPARTMENT

PROJECT HEARTBEAT PROGRAM

The City of Minneapolis had a +34% increase in the 45-64 year old age group over the last 10 years. Sudden Cardiac Arrest (SCA) is a common cause of death specific to this age group. On March 10, 2004 the Centers for Disease Control declared obesity would replace tobacco related illnesses as the number one preventable disease in America. Obesity causes diabetes which leads to hypertension, stroke and heart disease with a three-fold higher risk for sudden cardiac arrest (SCA). The most common cause of SCA is ventricular fibrillation, when the heart's electrical impulses become irregular and the heart is unable to pump oxygen-rich blood throughout the body. The treatment is defibrillation.

Defibrillation by a safe, effective and easy to use device called an Automatic External Defibrillator (AED) sends electrical current through an erratic heart to restore organized rhythm. They were designed to be used by non-medical personnel and feature one-button operation with clear voice directions and automatic analysis, enabling a person with minimal training to use the device. The new generation of AED's analyzes a victim's condition, and if necessary, delivers an electrical shock to the heart to reverse sudden cardiac arrest. The key to surviving SCA is speed of response. A victim receiving a shock from an AED within one minute stands a 90% chance of resuscitation, while a victim having to wait ten minutes for a shock may only have a 5% chance of survival.

The State of Minnesota Statute 2002 Chapter 604A.1 Good Samaritan Law provides immunity from liability to those providing emergency medical care by using or providing an automatic external defibrillator. The U.S. Food and Drug Administration (FDA) oversees the manufacture of AED's because they are medical devices. All AEDs sold in the U.S. marketplace today have been evaluated and cleared by the FDA.

The FDA's Center for Devices and Radiological Health (CDRH) states that a "physician oversees the public access defibrillation program" requiring a physician prescription and "refers to accessibility for trained users to use AEDs in public areas". The Minneapolis Fire Department's Medical Director (Dr. Brian Mahoney) has agreed to oversee the "**Minneapolis Project Heartbeat**" and will ask that any facility that installs a defibrillator provide at least one 4-hour AHA CPR-AED course for up to 10 employees. The federal Cardiac Arrest Survival Act (CASA) addresses AED replacement in federal buildings, the Federal Aviation Administration (FAA) addresses AEDs on airlines; the Occupational Health & Safety Administration (OSHA) advisory recommends AEDs in workplaces.

According to the legal opinion written by Richard Lazar, Esq., a legal expert on emergency medical services topics, who serves as an advisor to the National Center for

Early Defibrillation which can be found at http://www.earlydefibr.org/03_06_02.html states: “Legal liability risks associated with early defibrillation programs are quite remote.” He goes on to state “Providing medical causation in an early defibrillation case will be extremely difficult” and that “legal liability fears should not deter organizations considering the purchase and use of AEDs”. He concludes, “Two recent trial court verdicts suggest an evolving trend toward higher standards requiring the protection of customer health and safety in certain business contexts”. Clearly the benefits associated with widespread early defibrillation far outweigh liability risks.

The Minneapolis Fire Department and Cardiac Science, Inc. (located here in Hennepin County) with the passage of the City Resolution will partner to bring public access defibrillators to the City of Minneapolis. In exchange for a City Resolution, Cardiac Science will contribute \$100,000 in a tiered schedule toward the management of this project over three years. In exchange for dropping CSI literature during commercial building inspections explaining the benefits of early access defibrillation, CSI will return to the Fire Department \$150.00 per device sold and \$350.00 per CPR training package sold. The customer will receive a device with all accessories at a much reduced cost (\$1,100.00 off retail), a physician prescription, physician oversight, AHA CPR-AED training, data management and tracking. The Minneapolis Fire Department anticipates generating \$106,000 for the first full year of the contract, and an estimated \$137,000 in 2005. The revenue received will be dedicated to maintaining 4 firefighters on every response vehicle.

The goal of the “**Minneapolis Project Heartbeat**” is to make the City of Minneapolis “Heart Safe” by making AEDs available in all City/County facilities, at schools and universities, at sports and entertainment facilities, office buildings, businesses, industries and places of worship.