

# Automatic external defibrillators save lives in amateur sports and fitness centers

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Automatic external defibrillators (AEDs) save lives in amateur sports and fitness centres, according to research presented at ESC Congress today. The 18 year study found that survival from cardiac arrest reached 93% in centres equipped with an AED.

"Sudden cardiac death is a leading cause of death in Europe, affecting more than 300 000 people each year," said first author Dr Diego Penela, a cardiologist at Guglielmo da Saliceto Hospital, Piacenza, Italy. "The chance of survival decreases with every passing minute in which defibrillation is not performed."

AEDs can be used by emergency medical personnel and untrained members of the public to apply an external shock. Closer proximity and prompt use of AEDs improves the probability of survival.

Cardiac arrests occur more often in recreational sports centres than in general settings because of the stress put on the heart during sports. It is estimated that the probability of having a fatal arrhythmia is three times higher in athletes than non-athletes. Although the death of a competitive athlete hits the headlines, the majority of cardiac arrests occur during recreational sports.

Progetto Vita (Project Life) evaluated the impact of AED purchase by amateur sports centres on survival from sudden [cardiac arrest](#). The study included 252 sports centres in the Piacenza region of Italy. Data on the occurrence and outcome of sudden cardiac arrest at the centres was

prospectively collected during an 18 year period. Resuscitation, survival rates, and response times were compared between centres with and without AEDs.

A total of 207 (82%) amateur sports centres acquired an AED during the study period whereas 45 (18%) did not. During the 18 years, 26 sudden cardiac arrests occurred in amateur sport centres, of which 15 (58%) were in centres already equipped with an AED. Onsite AED use significantly reduced the time to first shock from 7.3 to 3.3 minutes ( $p=0.001$ ). Neurologically intact survival was 93% for patients treated with an onsite AED compared to 9% without an AED (p

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