



Automated External Defibrillator (AED) Program

INTRODUCTION

In 2013, the University Health and Safety Committee approved a proposal by the Health and Safety Department to install Automated External Defibrillators (AED) in strategic positions at selected Curtin campuses. This move demonstrates the University's commitment to the 'Chain of Survival' of the Curtin community through its investment in the implementation of an extensive AED Program.

This document includes relevant information on the program.

DEFINITIONS

AED	Automated External Defibrillators
PAD	Public Access Defibrillator
SCA	Sudden Cardiac Arrest
CPR	Cardiopulmonary Resuscitation

1. What is an AED?

An AED also referred to as a Public Access Defibrillator (PAD) is a portable and easy-to-operate medical device that analyses an unconscious person's heart rhythm and automatically delivers an electric shock if they are having a Sudden Cardiac Arrest (SCA). A SCA is a condition that occurs when the heart unexpectedly stops pumping. SCA can occur to anyone – young or old, male or female – anywhere, at any time. Many people with SCA have no warning signs or symptoms.

Cardiopulmonary Resuscitation (CPR) can maintain the blood flow and keep the blood oxygenated, but SCA is usually caused by fibrillation, a disturbance of the electrical activity in the heart's ventricular muscle, or larger pumping chamber. It causes the heart to quiver or 'fibrillate' in a disordered way. Because the electrical disruption prevents the heart pumping blood around the body effectively, the heart stops beating, or you have a SCA. This will cause the person to collapse, be unresponsive and have no signs of life. It is fatal if the person is not resuscitated quickly. The only effective treatment for fibrillation is defibrillation. The AED treats fibrillation by sending a shock across the heart, so it can start beating regularly again. Unless this is successful within the first few minutes after the heart stops beating, the person is not likely to survive.

An AED will not deliver a shock unless its built-in computer detects a shockable heart rhythm. However, treatment cannot assure survival. In some people, the underlying problem causing the SCA is simply not survivable despite any available care.

2. Indications for use

The AED should be used to treat someone you think may be having SCA. A person in SCA:

- Does not respond when shaken, and
- Is not breathing normally.

If in doubt, apply the pads. Follow the voice instructions for each step in using the AED.

3. Why can't we wait until the ambulance arrives?

Defibrillation is most effective when carried out within the first few minutes of SCA; its effectiveness diminishes by 10% for every minute that passes before defibrillation. Good CPR helps to prolong the time during which effective defibrillation can be achieved.

Defibrillation complements the Chain of Survival of SCA.

4. What is the Chain of Survival?

CHAIN OF SURVIVAL



Early
Access

1

Early
CPR

2

Early
Defibrillation

3

Early
Advanced Care

4

These are essential components or links in the Chain of Survival, they are a series of actions designed to reduce the mortality associated with SCA. Since 1992, the Chain of Survival has been widely promoted and has become the underlying concept for the treatment of out-of-hospital SCA in many Emergency Medical Services.

These essential actions are integrated within the standard First Aid protocol: [DRSABCD](#)



5. Who can use an AED?

AEDs are able to be used by the general public. The AED guides the user by visual and voice prompts, step-by-step through the defibrillation process. The AED **will not** deliver a shock unless it detects a shockable rhythm.

Familiarity with how to use the AED and First Aid may increase response time. The use of AEDs is provided by a number of first aid training organisations. Curtin's preferred provider, St John Ambulance, includes this in their 'Apply First Aid' training courses.

Consider completing a [First Aid Course](#) as part of your adult education and learn this valuable life-saving skill.

At Curtin, online AED Training will be offered as a priority to First Responders including:

- First Aid Officers
- Security Officers
- Fire Wardens

Other support groups such as Safety and Health Representatives may also be offered training in future – please contact [Health and Safety](#).

AED awareness training is offered to all other Curtin staff and students using the video link below.

[Click here to view the AED Video Clip](#)

Refer to the [HeartStart instruction manual](#) for more information on the HeartStart unit.

6. What if the AED is attached to a conscious person?

If there is normal electrical activity in the heart, the AED will not allow a shock to be given. The presence of normal electrical activity usually means that the heart is beating, and pumping blood with palpable pulse beats. E.g. if someone faints and the AED is applied the AED will not allow a shock to be delivered.

7. How will I know if the heart stops again?

The AED will continue to monitor the casualty's heart rhythm. If the analysis reveals that the heart rhythm changes to a shockable rhythm, you then need to follow prompts given by the AED.

More information on AEDs may be found on the [St John Ambulance FAQ](#) webpage.



8. What do I do if someone needs emergency resuscitation?

Follow the Curtin [Emergency Procedures](#) and [DRSABCD Action Plan](#)

After an incident has occurred it is important to complete an [online incident report](#) as soon as possible.

If an AED has been used, the operator must notify the Health and Safety Department by phone on 9266 4900 or [email](#) so that the single use items can be replaced and the AED is promptly returned to service.

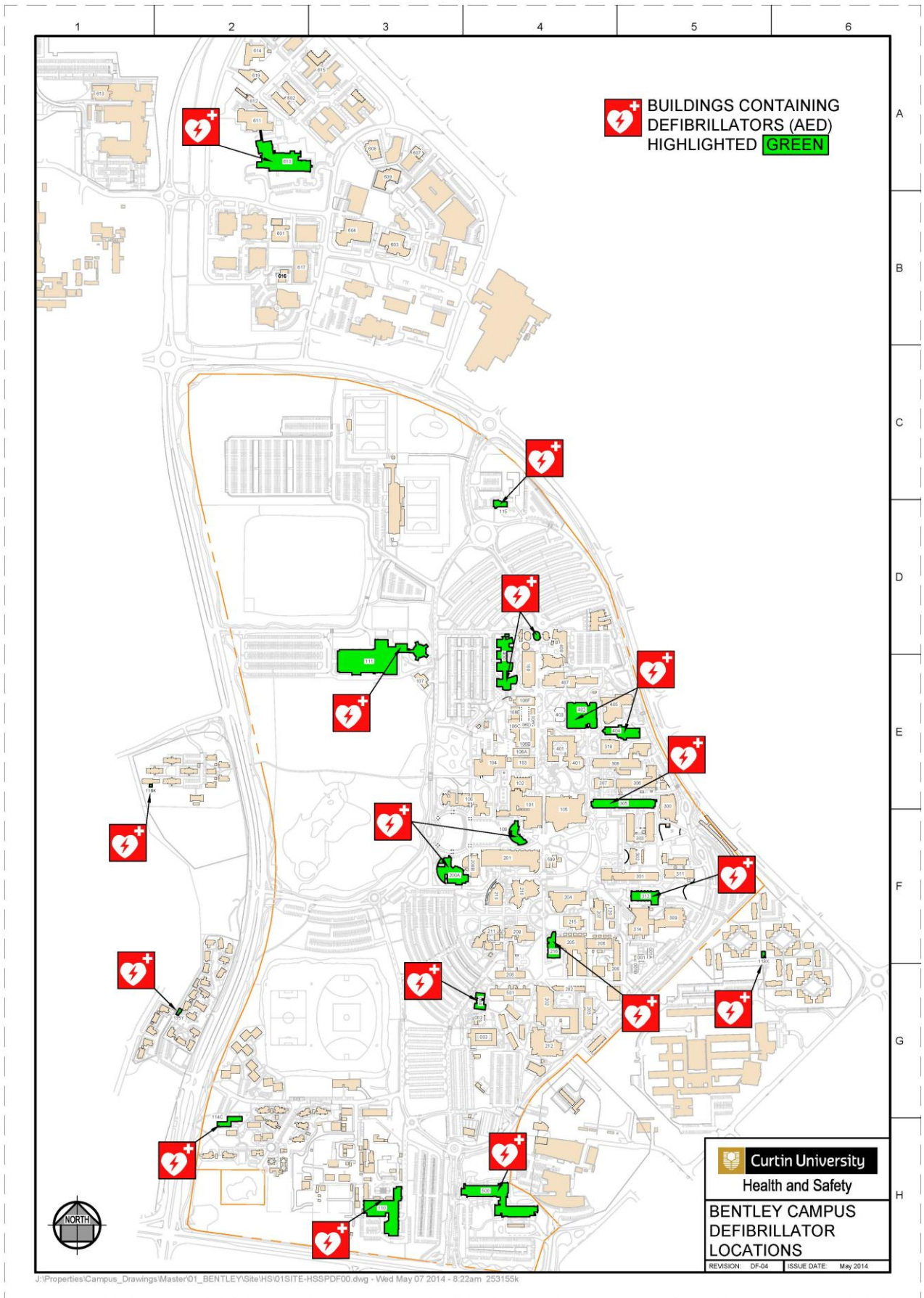
Following a medical emergency, [Counselling Services](#) should be offered to staff and students involved in the event.

9. Where are the AEDs located at Curtin?

AEDs have been installed in strategic [locations](#) across the campuses to provide coverage to all buildings within a defined response time. AEDs have also been situated in buildings where a specific risk of SCA has been identified as part of research and/or teaching activities. In addition, Security hold AEDs in three vehicles which can be brought to the scene of an emergency.

[AEDs are located](#) in the following buildings:

Number	Building Name	Location	Campus
004	Curtin FM Radio	Staff Room	Bentley
109	Health Services	Cupboard near treatment room	Bentley
110	Facilities Management	Covered external walkway	Bentley
111	Stadium	1st Aid Room, back wall	Bentley
115	Security	All vehicles	Bentley
116	Guild House	Laundry near extinguisher	Bentley
119	Vickery House	Laundry near telephone	Bentley
136	Kurrajong Village	Rotary House Laundry	Bentley
135	Erica Underwood House	Laundry near window	Bentley
200A	John Curtin Gallery	Foyer near emergency equipment	Bentley
216	Engineering	Foyer left side of lift	Bentley
305	Health Sciences	Administration room 111	Bentley
312	Geology	Foyer near emergency equipment	Bentley
400	Public Health	Level 2 outside Student Services	Bentley
402	Curtin Business School	Lift foyer ground floor western wall	Bentley
404	Health Science	Level 3 Physiotherapy clinics	Bentley
408	Business & Physiotherapy	Physiotherapy level 2 corridor	Bentley
500	Chemistry Precinct	Foyer ground floor under stairwell	Bentley
610	Brodie Hall Building	Foyer left side near fire panel	Bentley
701	WASM	Hallway right of main entrance	Kalgoorlie
Agricola	Agricola College	In the Gym	Kalgoorlie
Shenton Park	Shenton Park Campus	Ground floor corridor near lift	Shenton Park
Murray Street	Murray St Campus	Level 2 staff room near emergency telephone	Perth City





10. Community First Responder System

Curtin is a member of the [St John Ambulance Community First Responder System](#). This means that when St John Ambulance receives an emergency call (000) from a caller at a Curtin campus, they will notify Curtin Security of the medical emergency to initiate a local response. At Bentley Campus, Security will also meet the Ambulance at an agreed entrance and escort them to the emergency location.

11. Does the AED Cabinet alarm notify Security or St John Ambulance?

The AED cabinets have a local alarm only. The alarm does not notify Security or St John Ambulance but will provide audible notification to staff members in the area that the cabinet has been opened and prompt them to check if the unit has been removed so that they can then notify Security.

12. AED inspection and maintenance

The AEDs are capable of conducting daily, weekly and monthly self-tests to ensure they are 'rescue-ready' at all times. They are also checked by the First Aid Officer on a monthly basis and maintained on a six monthly programme by the supplier.

Contact Health and Safety on 9266 4900 if you notice that the:

- light on the upper right corner of the AED has turned red or there is an audible beep
- AED is damaged
- AED is missing
- pads are out of date

13. Good Samaritan Legislation

Even with the best intent, sometimes things could go wrong. The [Western Australian Civil Liability Act 2002](#) , *Part 1D – Good Samaritans*, provides details on [application of the legislation](#), [protection of Good Samaritans](#) and [exclusions from protection](#). Where a person is acting in an emergency situation, the nature of the circumstances and the skills of the Good Samaritan are taken into account in determining whether the Good Samaritan has acted reasonably.

[CIVIL LIABILITY ACT 2002](#)

5AD . Protection of good samaritans

- 1) *A good samaritan does not incur any personal civil liability in respect of an act or omission done or made by the good samaritan at the scene of an emergency in good faith and without recklessness in assisting a person in apparent need of emergency assistance.*
- 2) *A medically qualified good samaritan does not incur any personal civil liability for advice given in good faith and without recklessness about the assistance to be given to a person in apparent need of emergency assistance.*
- 3) *This section does not affect the vicarious liability of any person for the acts or omissions or advice of the good samaritan or medically qualified good samaritan.*



5AE . Exclusion from protection

The protection from personal civil liability conferred by this Part does not apply if the ability of the good samaritan or medically qualified good samaritan to exercise reasonable care and skill, at the relevant time, was significantly impaired by reason of the good samaritan or medically qualified good samaritan being intoxicated by alcohol or a drug or other substance capable of intoxicating a person and the intoxication was self-induced.

Source: <http://www.austlii.edu.au/>

14. RELEVANT DOCUMENTS/LINKS

[St John Ambulance WA](#)

[Heart Foundation](#)

[Western Australian Civil Liability Act 2002](#)

CONTACT DETAILS	
Contact	Health and Safety Ph: (08) 9266 4900 healthandsafety@curtin.edu.au
Approval Authority	Director, Health and Safety

REVISION HISTORY		
Revision #	Date	Amendment Description
1	12/11/2013	New document issued for use
2	23/12/2013	Updated descriptions of where AEDs are located