



ANZCOR Guideline 9.2.1 – Recognition and First Aid Management of Heart Attack

Guideline

Who does this guideline apply to?

This guideline applies to adult victims.

Who is the audience for this guideline?

This guideline is for use by bystanders, first aiders and first aid providers.

1 Introduction

A person experiences a heart attack when there is a sudden partial or complete blockage of one of the coronary arteries that supply the heart muscle. As a result of the interruption to the blood supply, there is an immediate risk of life-threatening changes to the heart rhythm. If not corrected quickly there is also a risk of serious, permanent heart muscle damage. To reduce the chance of sudden death from heart attack, urgent medical care is required – “*every minute counts*”.

Heart attack is different from, but may lead to, cardiac arrest. Cardiac arrest is cessation of heart action.

Survival after heart attack can be improved by current treatments¹ and clot-dissolving medications that clear the blocked artery, restore blood supply to the heart muscle and limit damage to the heart. These therapies are most effective if administered as soon as possible following the onset of symptoms with these benefits declining with delays in treatment.

2 Recognition

For some victims, sudden cardiac arrest may occur as the first sign of heart attack – however most experience some warning signs. It is important to note:

- a heart attack can occur in a victim without chest pain or discomfort as one of their symptoms
- the most common symptom of heart attack in a victim without chest pain is shortness of breath
- a victim who experiences a heart attack may pass off their symptoms as ‘just indigestion’.

2.1 Warning signs

If the warning signs are severe, get worse quickly, or last longer than 10 minutes, **act immediately**. The victim may experience one or a combination of these symptoms:

- pain or discomfort
- pale skin
- shortness of breath
- nausea or vomiting
- sweating
- feeling dizzy or light-headed.

Discomfort or pain in the centre of the chest may start suddenly, or come on slowly over minutes. It may be described as tightness, heaviness, fullness or squeezing. The pain may be severe, moderate or mild. The pain may be limited to, or spread to, the neck, throat, jaw, either or both shoulders, the back, either or both arms and into the wrists and hands.

Atypical chest pain is defined as pain that does not have a heaviness or squeezing sensation (typical angina symptoms), precipitating factors (e.g., exertion), or usual location.

Some people are more likely to describe atypical² or minimal symptoms³ and include:

- the elderly;
- women;
- persons with diabetes;
- Australian Indigenous population and Māori and Pacific Island people.

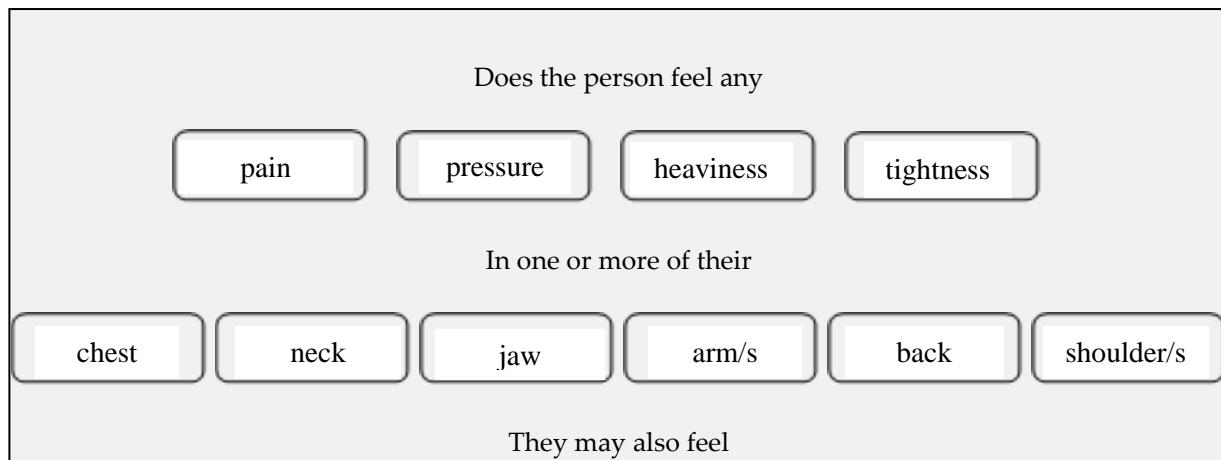
These people should seek urgent assessment by a health care professional if they have any warning signs of heart attack, no matter how mild.

3 Management

- Encourage the victim to stop what they are doing and to rest in a comfortable position.
- If the victim has been prescribed medication such as a tablet or oral spray to treat episodes of chest pain or discomfort associated with angina, assist them to take this as they have been directed.
- Call an ambulance if symptoms are severe, get worse quickly or last longer than 10 minutes.
- Stay with the victim until the ambulance or on-site resuscitation team arrives.
- Give aspirin (300 mg) (CoSTR 2015: strong recommendation/high quality evidence)⁴. Dissolvable aspirin is preferred.
- Administer oxygen if there are obvious signs of shortness of breath and you are trained to do so, following The Use of Oxygen in Emergencies (ANZCOR Guideline 14.2).
- If practical and resources allow, locate the closest AED and bring it to the victim.

If the victim is unresponsive and not breathing normally, commence resuscitation following the Basic Life Support Flowchart (ANZCOR Guideline 8).

Warning Signs of Heart Attack Action Plan



1

STOP – stop the person from what they are doing and tell them to rest

2

TALK – ask them what they are feeling

If they take angina medicine:

- Take a dose of medicine.
- Wait 5 minutes. Still has symptoms?
Take another dose of angina medicine.
- Wait 5 minutes. Still has symptoms?

Or

- Are symptoms severe?
- Getting worse quickly?
- Have lasted for 10 minutes?

YES

3

CALL – an ambulance now – administer aspirin (300 mg) if available

- In Australia: call 000 (or 112)
- In New Zealand: call 111
- Don't hang up
- Wait for the operator's instructions.

Adapted with permission from the National Heart Foundation of Australia. Warning signs action plan. Melbourne: National Heart Foundation of Australia, 2012

References

1. 2011 Addendum to the National Heart Foundation/Cardiac Society of Australia and New Zealand Guidelines for the Management of Acute Coronary Syndromes (ACS) 2006. *Heart, Lung and Circulation* Volume 20, Issue 8, Aug 2011, Pages 487–502
2. Patel H, Rosengren A, Ekman I, et al. (2004) Symptoms in acute coronary syndromes: Does sex make a difference? *American Heart Journal*. 148(1):27-33.
3. Canto J, Rogers W, Goldberg R, et al. (2012) Association of Age and Sex With Myocardial Infarction Symptom Presentation and In-Hospital Mortality. *Journal of the American Medical Association*. 307(8):813-822
4. Zideman DA, Singletary EM, De Buck E, et al. (2015). Part 9: First aid: 2015 International Consensus on First Aid Science with Treatment Recommendations. *Resuscitation*, 95, e225 [http://www.cprguidelines.eu/assets/downloads/costr/S0300-9572\(15\)00368-8_main.pdf](http://www.cprguidelines.eu/assets/downloads/costr/S0300-9572(15)00368-8_main.pdf) Accessed 19/11/2015

Further Reading

National Heart Foundation (Australia). Heart Attack Facts. <http://www.heartattackfacts.org.au>

National Heart Foundation (Australia) Warning signs of heart attack action plan.
http://www.heartattackfacts.org.au/action_plans/HeartAttackActionPlan-english.pdf

ANZCOR Guideline 7 Automated External Defibrillation (AED) in Basic Life Support (BLS)

ANZCOR Guideline 8 Cardiopulmonary Resuscitation

Australian Resuscitation Council. Frequently Asked Questions #16. The Australian Resuscitation Council's position on oxygen administration.

http://www.resus.org.au/policy/guidelines/guideline_faqs.pdf

ANZCOR Guideline 14 ACS: Overview & summary

ANZCOR Guideline 14.1 ACS: Presentation with ACS

ANZCOR Guideline 14.2 ACS: Initial Medical Therapy