1.5.4 Responding to a heart attack

The most important rule is simple: if you or someone around you may be having a heart attack, do not wait for every "classic" symptom to appear. Call 911 immediately!

You can remember what to do with the word HEART:

H - Help is needed

Call 911 without delay, even if you are not certain.

E - Ease into a comfortable position

Stop all activity. Help the person sit or lie down in whatever position is most comfortable and encourage them to rest.

A - Act on the dispatcher's instructions

Stay on the phone and follow the 911 dispatcher's directions. If the person has been prescribed nitroglycerin, they should take it as directed and carefully monitor their condition, as it can cause severe dizziness/fainting. Also, it is helpful to inform the dispatcher of any recent medications taken, such as sildenafil or tadalafil, which can interact dangerously with nitrates. Follow the dispatcher's guidance about ASA. Some of the contraindications for ASA are severe allergies or current and active bleeding, and blood clotting disorders. 162 to 325mg is usually the recommended dosage.

R - Remain with the person

Stay with them and monitor their condition until emergency services arrive. If you are at home, make it easy for paramedics to reach you.

T - Take action if the person collapses, becomes unresponsive or stops breathing

They may be in cardiac arrest. Tell the dispatcher, start CPR immediately and use an AED as soon as one is available.

Here are a few common myths about responding to a heart attack.

Myth: "I'm having chest pain like never before, jaw pain, and I'm sweating even though I've been sitting still. Let's wait a few minutes and see if it goes away."

WRONG. Heart attack symptoms are not always dramatic: they may be mild, develop gradually, or even disappear and return. That does not mean it is safe to wait. If you think symptoms could represent a heart attack, you do not need to diagnose it yourself before asking for help. Call 911 first. The medical dispatcher will ask questions about what is

happening, assess the urgency of the situation and give you instructions while help is on the way.

Myth: "I can drive myself to the hospital if there is no traffic and I can make it in less than 30 minutes."

WRONG. Do not drive yourself or someone having a heart attack to the hospital. In your car, you cannot safely treat someone whose heart suddenly stops. Worse, if you are having a heart attack, you could lose consciousness and cause a fatal crash. Calling an ambulance is the single best way to ensure rapid care for a heart attack.

An ambulance is not just a ride to the hospital. Calling 911 activates the prehospital emergency-care system. Paramedics who arrive on scene can assess the person's condition, monitor them, begin emergency treatment for cardiac problems and respond immediately if their condition deteriorates. They can also record a 12-lead ECG at the scene and transmit it ahead to the hospital, which shortens the time to life-saving treatment (Le May et al., N Engl J Med 2008, doi:10.1056/NEJMoa073102). Québec's prehospital system also directs patients toward a hospital able to meet their medical needs, as not every hospital has a cath lab needed to address an acute STEMI, for example. This is particularly important because a heart attack can sometimes trigger a dangerous abnormal heart rhythm and progress to cardiac arrest.

Call 911 and let emergency services come to you.

Myth: "I'll give them their medication and see if it works."

WRONG. Medication should never delay the emergency call. If the person has been prescribed nitroglycerin for angina, they should take it as prescribed while emergency help is on the way.

Never give someone another person's prescription medication. If symptoms are new, worsening, different from their usual angina, occurring at rest, or not responding to nitroglycerin as they normally do, the person needs emergency assessment.

Myth: "Aspirin can resolve a heart attack."

WRONG. Aspirin (acetylsalicylic acid, or ASA) can be taken during a heart attack, but it does not resolve the heart attack. Most heart attacks involve a blood clot forming in a coronary artery, and ASA helps prevent that clot from growing larger. However, ASA is not appropriate for every person or every emergency. Someone may have an allergy or intolerance, a significant bleeding risk, or symptoms caused by another condition for which aspirin could be harmful.

The Heart and Stroke Foundation of Canada advises calling 911 first, then chewing and swallowing ASA, not any other painkiller, if the person is not allergic or intolerant to it:

either one 325 mg tablet or two 81 mg tablets (heartandstroke.ca/heart-disease/conditions/heart-attack). Most importantly, ASA does not replace emergency medical care.

Myth: "I've called 911. Now I just wait."

WRONG. Stay with the person and prepare for help to arrive. There are several useful things you can do while waiting:

- Monitor how the person is doing.
- Follow the dispatcher's instructions and remain on the phone.
- Loosen any tight clothing to make them more comfortable.

If you are at home:

- unlock the door
- clear the entrance, stairs or hallways
- make sure the address is visible
- secure any pets that could escape when emergency services arrive
- gather the person's medications

If another person is with you, have them guide emergency services to you.

Myth: "I've called 911, and help is on the way, but the person's condition has just changed. They are unconscious now. I should keep waiting for the ambulance."

WRONG. You need to recognize cardiac arrest and act immediately.

A person having a heart attack is usually conscious and breathing. But a severe heart attack can sometimes trigger cardiac arrest, meaning the heart suddenly stops pumping blood effectively.

If the person:

- suddenly collapses
- becomes unresponsive
- is not breathing or is not breathing normally

… the emergency has changed and is now a cardiac arrest.

If you are still on the phone with the dispatcher, tell them immediately. If the patient is unresponsive, pulseless and not breathing, you should start CPR immediately, following the dispatcher's instructions, and have someone retrieve an automated external defibrillator

(AED) if one is available. Use the AED as soon as possible and follow its spoken instructions.