



EMERGENCY SIGNS, SIGNALS, ACTIONS – FOR LIFE

Do you know what to do in case of a cardiac emergency? By learning the warning signs and signals of heart attack, cardiac arrest and stroke, and knowing what action to take, you may save a life – yours or a loved one's.



**HEART &
STROKE
FOUNDATION**

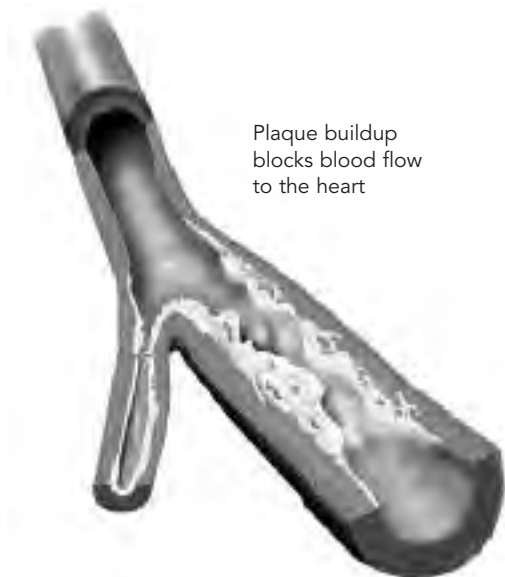
Finding answers. For life.

ARE YOU READY FOR A CARDIAC EMERGENCY?

The Heart and Stroke Foundation encourages all Canadians to recognize the warning signals of a heart attack, cardiac arrest and warning signs of a stroke so that emergency treatment can start as soon as possible to save a life. Here's what you need to know:

What is a heart attack?

Your heart is a muscle that acts as a powerful pump that pushes blood around your body. In order for your heart to work properly, coronary arteries that supply oxygen to your heart need to be in good working order. If one of these arteries becomes blocked, your heart will become deprived of oxygen and may become permanently damaged. Atherosclerosis, the narrowing of coronary arteries due to plaque buildup from cholesterol and other substances, causes more than 90% of heart attacks.



Plaque buildup blocks blood flow to the heart

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Thousands of Canadians die from heart attacks every year because they don't get medical treatment quickly enough. Learn to recognize the signals of a heart attack so you can react quickly and save a life.

Heart attack warning signals and actions

SIGNALS

Pain

- sudden discomfort or pain that does not go away with rest
- pain that may be in the chest, neck, jaw, shoulder, arms or back
- pain that may feel like burning, squeezing, heaviness, tightness or pressure
- in women, pain may be more vague
- chest pain or discomfort that is brought on with exertion and goes away with rest

Shortness of breath

- difficulty breathing

Nausea

- indigestion
- vomiting

Sweating

- cool, clammy skin

Fear

- anxiety
- denial

ACTIONS

If you are experiencing any of these heart attack warning signals, you should:

- **CALL 9-1-1** or your local emergency number immediately, or have someone call for you. Keep a list of emergency numbers near the phone at all times.
- Stop all activity and sit or lie down in whatever position is most comfortable.
- If you have been prescribed nitroglycerin, take your normal dosage.
- If you are experiencing chest pain, chew and swallow one adult 325 mg ASA tablet (acetylsalicylic acid, commonly referred to as Aspirin®) or two 80 mg tablets. Pain medicines such as acetaminophen (such as Tylenol) or ibuprofen (such as Advil®) do not work the same way as ASA and therefore will not help in the emergency situation described above.
- Rest comfortably and wait for emergency medical services (EMS) (such as ambulance) to arrive.

The importance of acting fast

Treatment can stop a heart attack right in its tracks if you act fast enough. If clot-busting drugs or artery opening treatments are administered within an hour of the start of symptoms, then the effects can be stopped or the damage can be reduced. So it is very important that you call or have someone call 9-1-1 or your local emergency number.

Are the warning signals of heart attack the same for women?

In the past, it was believed that women had different warning signals than men. This may not be the case. Both women and men may experience typical or non-typical symptoms such as nausea, sweating, pain in the arm, throat, jaw or pain that is unusual. However, women may describe their pain differently than men. Still, the most common symptom in women is chest pain.

WHAT IS A STROKE OR TIA?

A stroke is a sudden loss of brain function. It is caused by the interruption of the flow of blood to the brain (ischemic stroke or transient ischemic attack – TIA – also known as a “mini stroke”) or the rupture of blood vessels in the brain (hemorrhagic stroke). A stroke causes brain cells in the affected area to die. The effects of a stroke depend on where the brain was injured, as well as how much damage occurred. A stroke can impact any number of areas including your ability to move, see, remember, speak, reason, read and write.

Stroke is a medical emergency. Recognizing and responding immediately to the warning signs of stroke by calling 9-1-1 can significantly improve survival and recovery. Only 20% to 25% of those who have a stroke actually get emergency care and treatment within crucial hours of the onset of symptoms – the critical time frame during which clot-busting drugs are most effective.* A stroke can be treated – that’s why it is so important to remember, recognize and respond to the five warning signs of stroke.

* Health Canada has approved the clot-busting drug called tPA to be used within 3 hours from the time symptoms begin. However, emerging science is now showing that tPA could be effective up to 4 1/2 hours afterward. As a result, the Canadian Stroke Strategy has issued new Canadian Best Practices Recommendations for Stroke Care, which have included this new treatment time. Still, it would be up to the attending emergency doctors to determine when tPA may be administered or if it is appropriate to the situation.

SIGNS



Weakness – Sudden loss of strength or sudden numbness in the face, arm or leg, even if temporary.



Trouble speaking – Sudden difficulty speaking or understanding or sudden confusion, even if temporary.



Vision problems – Sudden trouble with vision, even if temporary.



Headache – Sudden severe and unusual headache.



Dizziness – Sudden loss of balance, especially with any of the above signs.

ACTIONS

If you experience any of these symptoms, CALL 9-1-1 or your local emergency number immediately.

WHAT IS CARDIAC ARREST?

Cardiac arrest is a medical emergency. When a person stops breathing and the heart stops beating, the person is experiencing cardiac arrest. (It is not a heart attack, which is when the blood supply to the heart is slowed or stopped because of a blockage.)

Cardiac arrest may have a variety of causes – heart disease, drowning, stroke, electrocution, suffocation, drug overdose, motor vehicle or other injury.

If you find someone experiencing cardiac arrest, you must act quickly. With each passing minute, the probability of survival declines by 7% to 10%. When CPR and defibrillation are used together, survival rates may increase to more than 50%.

SIGNS OF CARDIAC ARREST

A person may be experiencing cardiac arrest when he or she is:

- Suddenly not responsive, especially when called or tapped on the shoulder.
- Not breathing when you tilt the head back and check for at least five seconds.

ACTIONS

If there are bystanders, follow these steps:

- 1) Tell someone to **call 9-1-1** or your local emergency number immediately.
- 2) Tell someone to get an Automated External Defibrillator (AED) if one is available and use it as soon as it arrives.
- 3) Begin CPR if you know it.

If you are alone with an adult experiencing a cardiac arrest, follow these steps:

- 1) **Call 9-1-1** or your local emergency number immediately.
- 2) Get an Automated External Defibrillator (AED) if one is available, and use it as soon as you have it in hand.
- 3) If no AED is available, begin CPR if you know it.

What is CPR?

Cardiopulmonary Resuscitation (CPR) is an emergency procedure involving compressions (pressing down on the chest) and artificial respiration (rescue breathing). CPR has the power to restore blood flow to someone experiencing cardiac arrest, keeping them alive until an ambulance arrives.

What is the Foundation's role in creating emergency response guidelines?

The Heart and Stroke Foundation of Canada (HSFC) sets the Canadian Guidelines for CPR, defibrillation and other aspects of emergency cardiovascular care in Canada. HSFC is a founding member of the International Liaison Committee on Resuscitation (ILCOR). HSFC, in collaboration with the American Heart Association, uses ILCOR's information to continuously update Guidelines for North America.



Facts about cardiac arrest

- About **40,000** people die of cardiac arrest in Canada every year.
- Overall, the rates of survival from cardiac arrest are almost **four times greater** with CPR.
- **Bystanders such as a family member or friend witness 35% to 55%** of cardiac arrests.
- Less than **5%** of people who experience cardiac arrest outside of a hospital survive, largely because CPR is not performed at all or not started soon enough.
- Cardiac arrest survival rates increase when bystanders follow the first three links in the Chain of Survival:
 - phoning **9-1-1** or a local emergency number
 - performing CPR right away
 - providing defibrillation as soon as possible

WHY SHOULD YOU GET TRAINED IN CPR?

Learning CPR is easy and inexpensive – just a few hours could make an important difference in someone’s life. Since most cardiac arrests happen at home, you could be saving the life of a family member or friend. Find out about CPR training in your area by visiting heartandstroke.ca/cpr.

Once the heart stops pumping during a cardiac arrest, seconds count. For every minute that passes without help, a person’s chance of surviving drops by about 10%. But if you know how to respond to someone experiencing a cardiac arrest, the odds of survival and recovery may increase by 30% or more.

Learn CPR at home

The **Family & Friends CPR Anytime™ Personal Learning Program** allows families, friends and the general public – those who most likely would never attend a traditional CPR course – to learn the core skills of CPR for adults and children in just 20 minutes using their own personal kit. The kit contains everything needed to learn basic CPR, and skills can be learned anywhere, from the comfort of a family home to a large community group setting.

How much does the kit cost?

The **Family & Friends CPR Anytime** kit costs \$35 plus shipping, handling and taxes. CPR Anytime products are available for sale for residents in Canada only. Visit heartandstroke.ca/CPRanytime or call 1-888-LAERDAL.



Nathalie Ouellet received CPR training and she’s glad she did. When one of her colleagues at work collapsed from cardiac arrest, she knew what to do. Her efforts enabled her co-worker to survive.

“CPR helps you recognize the signs of distress and gives you very clear steps to follow. Everybody should know how to do it. It’s very moving to know that you can save a life.”



What is an Automated External Defibrillator (AED)?

New Automated External Defibrillators (AEDs) make it possible for even non-medical personnel to restore heart rhythm – and life. An AED is a machine that can monitor heart rhythms. It can tell if the heart has stopped beating effectively. If required, the machine can then deliver a small electric shock to the heart. Most of the time, this shock will restart the heart.

The training required is relatively brief and is usually delivered in conjunction with a CPR course.

An AED program could be right for your organization or community if it is in a location where:

- people gather for work or leisure
- emergency medical services cannot access quickly (within 5 minutes) because of long distances, heavy traffic, or building layout (for example, a high-rise or a large venue)
- people at high risk for cardiac arrest, such as a seniors' centre, would require a timely emergency response
- the health of workers, clients, or community members is an organizational priority.

Please read our online document *Automated External Defibrillation: Whose life will you need to save?* at heartandstroke.ca/aed to find out more.

Are you at risk for heart disease or stroke?

Reduce your risk of heart disease or stroke by knowing and preventing your risks. Take the Heart&Stroke Risk Assessment™ to find out if you are at increased risk for heart disease or stroke at www.heartandstroke.ca/risk



PLAN AHEAD

For your safety, fill in this plan of action and keep it in a handy place.

Learn the signals of heart attack and warning signs for stroke. Talk with family, friends and co-workers about them and the need to call 9-1-1 or your local emergency number quickly should they occur.

Sign up for CPR training and encourage family, friends and co-workers to take a course or purchase a copy of **Family & Friends CPR Anytime™**. (heartandstroke.ca/CPRanytime)

Ask about the availability of AED machines in the public places you frequent, such as community centres, shopping malls, gyms and workplaces. If an AED is not available, urge the building owners to contact the Heart and Stroke Foundation about our AED initiative.

Talk with your healthcare provider about your risk factors for heart attack and stroke and how to reduce them.

Emergency information to have on hand

9-1-1 or your local emergency number

Provincial Health Card Number and where
you keep your card

What medical conditions you have

What medications you are currently taking

What allergies (including medications)

Blood Type _____

Persons to contact if you go to the hospital

NAME: _____

TELEPHONE #: _____

NAME 2: _____

TELEPHONE #: _____

DOCTOR'S NAME: _____

DOCTOR'S TELEPHONE # _____



**HEART &
STROKE
FOUNDATION**

Finding answers. For life.

Thank you to the millions of Canadians who put their hearts into supporting our vital work.

Because of you, the Foundation has helped reduce the mortality rate from heart disease and stroke by 70% over the past 50 years. Sadly, still one in three Canadian deaths are due to heart disease and stroke every year – and millions remain at risk.

More answers are needed to facilitate further medical advances, effect social change and provide public and professional health education that save lives – today and for generations to come.

The Heart and Stroke Foundation web site offers a wealth of information and tools to help you and your family prevent and manage heart disease and stroke. At the site, you may find:

- Delicious heart-healthy recipes
- Tips to get and stay active for life
- Current heart disease and stroke patient information
- Breaking news on Foundation funded research
- Free newsletters, Heart&Stroke He@lthline and He@lthline for Parents
- How to get involved and make a difference in your community

PUT YOUR HEART INTO IT.™

Learn more at

www.heartandstroke.ca

or call

**1-888-HSF-INFO
(1-888-473-4636)**