



## Emergency signs and actions - for life

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



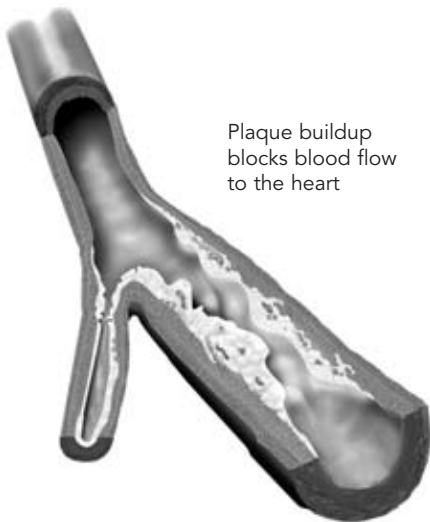
**HEART &<sup>TM</sup>  
STROKE  
FOUNDATION**

# ARE YOU READY FOR A CARDIAC EMERGENCY?

The Heart and Stroke Foundation encourages all Canadians to recognize the warning signs of heart attack, cardiac arrest and 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.



# Heart attack warning signs and actions

## SIGNS



### 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



### Sweating

- cool, clammy skin



### Nausea

- indigestion
- vomiting



### Fear

- anxiety
- denial

## ACTIONS

If you are experiencing any of these heart attack warning signs, 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.

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

## 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.

## Facts about heart attack:

- There are an estimated 70,000 heart attacks each year in Canada. That's one heart attack every 7 minutes.
- Over 16,000 Canadians die each year as the result of a heart attack. Most of these deaths occur out of hospital.
- Nine in 10 Canadians have at least one risk factor for heart disease or stroke. Knowing and controlling your risk factors reduces your risk of a heart attack.
- Heart attack warning signs tell you that your heart is not getting enough oxygen and nutrients. The longer your heart is without oxygen, the greater the damage to your heart muscle. Acting fast prevents permanent damage!
- Studies show that by calling an ambulance you increase your odds of surviving a heart attack. Don't drive yourself to the hospital! Get immediate care by calling 9-1-1 or your local emergency number.

# THE HEART TRUTH™

Heart disease and stroke is the leading cause of death for women in Canada but most don't know it. That's why the Heart and Stroke Foundation launched The Heart Truth™ campaign. The Heart Truth campaign is raising awareness of women's risk for heart disease and stroke and spreading a lifesaving message to empower Canadian women to protect their heart health. Learn more at [thehearttruth.ca](http://thehearttruth.ca)



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THE  
TRUTH

## Are the warning signs of heart attack the same for women?

In the past, it was believed that women had different warning signs 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.



## 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.

**Stroke is a medical emergency.** Recognizing and responding immediately to the warning signs of stroke by calling 9-1-1, or your local emergency number, 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.

# 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 by as much as 75% if delivered in the first few minutes.

## 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.

# HEART ATTACK OR STROKE E-MAILS

You may receive e-mails from well meaning family and friends that claim to have authentic information about the signs and symptoms of heart attack or stroke. These messages usually contain incorrect information. Some may include a catchy phrase of signs to look for or certain activities to perform in order to prevent a heart attack or stroke. These messages only serve to confuse or cause delay in seeking help.

A heart attack or stroke is a very serious event that requires immediate medical attention. If you, or a loved one, suffer such an event, it is important to know the correct warning signs and how to act in order to get the best treatment available as early as possible.

The Heart and Stroke Foundation urges you not to circulate e-mails of this nature to your family and friends. Instead, become familiar with, and share the correct warning signs. Knowing these signs and calling 9-1-1, or your local emergency number immediately, is the most important thing you can do.

## 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



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."*

## 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](http://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

Research suggests that doubling the number of citizens trained in CPR could save more than 1,000 lives in Canada every year.

The ***CPR Anytime™ for Family & Friends™*** kit 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 22 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 **CPR Anytime™ for Family & Friends™** kit costs \$35 plus shipping, handling and taxes. CPR Anytime products are available for sale for residents in Canada only. Visit [heartandstroke.ca/CPRanytime](http://heartandstroke.ca/CPRanytime) or call 1-888-LAERDAL.

## What does the kit contain?

Each **CPR Anytime™ for Family & Friends™** kit provides:

- A personal, inflatable CPR mannequin – “Mini Anne™.”
- CPR Anytime™ Skills Practice DVD.
- CPR Anytime™ for Family & Friends™ booklet.
- Accessories for the program.





## 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](http://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 [heartandstroke.ca/risk](http://heartandstroke.ca/risk)



### PLAN AHEAD

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

Learn the signs of heart attack and 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 **CPR Anytime™ for Family & Friends™**. ([heartandstroke.ca/CPRanytime](http://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 your risk.

# Emergency information to have on hand

9-1-1 or your local emergency number

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Provincial Health Card Number and where  
you keep your card

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What medical conditions you have

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What medications you are currently taking

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What allergies (including medications)

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Blood Type \_\_\_\_\_

Persons to contact if you go to the hospital

NAME: \_\_\_\_\_

TELEPHONE #: \_\_\_\_\_

NAME 2: \_\_\_\_\_

TELEPHONE #: \_\_\_\_\_

DOCTOR'S NAME: \_\_\_\_\_

DOCTOR'S TELEPHONE # \_\_\_\_\_

## 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 75% 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

Learn more at  
[heartandstroke.ca](http://heartandstroke.ca)  
or call  
**1-888-HSF-INFO (473-4636)**

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