

CPR/AED Course



First Aid & CPR Media Presentation

CANADIAN RED CROSS

CPR/AED Course

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Introduction

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The Founders

Henry Dunant
Founder of the Red Cross

Dr. George Sterling Ryerson
Founder of the Canadian Red Cross

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A Body of an Idea

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The Red Cross

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Red Cross Fundamental Principles

- ▶ Humanity
- ▶ Neutrality
- ▶ Impartiality
- ▶ Independence
- ▶ Voluntary Service
- ▶ Universality
- ▶ Unity

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Wherever Help is Needed

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Canadian Red Cross Mission Statement

"To improve the lives of vulnerable people by mobilizing the power of humanity in Canada and around the world."

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The First Aider's Role

- ▶ Recognize the emergency.
- ▶ Call EMS/9-1-1.
- ▶ Act according to your skills, knowledge, and comfort level.



Introduction - Page 3

8 10

Get Consent

Tell the person:

- ▶ Who you are
- ▶ You are trained in first aid
- ▶ You are there to help



Introduction - Page 5

8 11



Check, Call, Care



8 12

Be Systematic

- ▶ Check
- ▶ Call
- ▶ Care



Check, Call, Care - Page 6

8 13

Check, Call, Care



Check, Call, Care

8 13

Check the Scene

- ▶ Is it safe?
- ▶ What happened? How did it happen?
- ▶ How many ill or injured people are there?
- ▶ Is there someone to help me?
- ▶ Is there someone who looks unconscious?



Check, Call, Care - Page 4

8 14

Check the Person

- ▶ Does the person respond?
 - ▶ Ask the person, "Are you okay?"
 - ▶ If the shoulder doesn't respond, tap his or her shoulder.
- ▶ Does the person want your help?



Check, Call, Care - Page 4

8 15

Check the Person's ABCs

Checking the ABCs is a rapid assessment that is done simultaneously. It should take no more than 5 to 10 sec.

- ▶ A = Check the Airway / B = Check Breathing
- ▶ C = Check Circulation



Check, Call, Care - Page 5

8 16

Call

- ▶ Call EMS/9-1-1 and get an AED.



Check, Call, Care - Page 6

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Care

- ▶ Care for all life-threatening conditions first.



Check, Call, Care - Page 6

8 18

Practice

Let's practise this skill >>



8 19

External Deadly Bleeding: What to Look For

- ▶ Large amounts of bleeding
- ▶ Signs of shock



Check, Call, Care - Page 7

8 20

External Deadly Bleeding: What to Do

Check, Call, Care:

- ▶ Expose the wound.
- ▶ With a dressing, apply direct pressure to the bleeding.
- ▶ Secure the dressing.
- ▶ Ensure the ABCs are present.



Check, Call, Care - Page 7

8 21

Practice

Let's practise this skill >>



8 22

Internal Deadly Bleeding: What to Look For

- ▶ Bruising in the injured area
- ▶ Soft tissues may be swollen, tender, or hard
- ▶ Shock
- ▶ Blood in saliva or vomit
- ▶ Pain
- ▶ Severe thirst




Check, Call, Care - Page 7

8 23

Internal Deadly Bleeding: What to Do

Check, Call, Care:

- ▶ Help the person rest in a comfortable position.
- ▶ Ensure the ABCs are present.




Check, Call, Care • Page 7

H.A.I.N.E.S. Recovery Position

Move an unconscious person into the H.A.I.N.E.S. recovery position if:


- ▶ You have to leave the person alone for any reason.
- ▶ The person's airway is open.
- ▶ The person is breathing.
- ▶ There is no deadly bleeding.

This position helps to keep the airway open and allows any blood or vomit to drain from the mouth.



Check, Call, Care • Page 8

H.A.I.N.E.S. Recovery Position



Check, Call, Care • Page 8

Practice

Let's practise this skill >>




Check, Call, Care • Page 9

Airway Emergencies



Check, Call, Care • Page 10

The Airway System




Airway Emergencies • Page 11

Choking

- ▶ **Mild choking:** airway is partly blocked, reducing the flow of air to the lungs
- ▶ **Severe choking:** airway is totally blocked, stopping air from reaching the lungs

If the person can speak, cough, or breathe, it is mild choking.



Airway Emergencies • Page 12

Choking: Common Causes



- ▶ Trying to swallow large pieces of food.
- ▶ Eating while talking, walking, running, or playing.
- ▶ Drinking too much alcohol before and during meals.

Airway Emergencies • Page 13

Conscious, Choking Adult or Child: What to Do


Check, Call, Care:

- ▶ Encourage the person to cough. Do not interfere.
- ▶ For severe choking, give 5 firm back blows.
- ▶ If the object has not come out, give 5 abdominal thrusts.
- ▶ Continue back blows and abdominal thrusts until the object comes out or the person begins to breathe or cough or becomes unconscious.

Airway Emergencies • Page 14

Conscious, Choking Adult



Check, Call, Care • Page 15


Practice

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Check, Call, Care • Page 16

Conscious, Choking Child



Check, Call, Care • Page 17

Practice

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Check, Call, Care • Page 18

Choking Adaptations

- ▶ Someone larger than you or pregnant
- ▶ Someone in a seated position
- ▶ If you are alone and choking



Airway Emergencies • Page 19



Chest Thrusts For A Large Person



Check, Call, Care • Page 20

Practice

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8-40

Conscious, Choking Baby: What to Do



Check, Call, Care:

- ▶ If the baby is coughing or gagging, the choking is mild. Do not interfere.
- ▶ For severe choking, give 5 firm back blows.
- ▶ If the object has not come out, give 5 chest thrusts.
- ▶ Continue back blows and chest thrusts until the object comes out or the baby begins to cry, breathe or cough or becomes unconscious.

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Conscious, Choking Baby

8-42

Practice

Let's practise this skill >>








8-43

Unconscious, Choking Adult, Child, or Baby: What to Do


Check, Call, Care:

- ▶ 30 compressions—"push hard, push fast."
- ▶ 1 rescue breath.
- ▶ Reposition the head and attempt to give another breath.
- ▶ 30 compressions.
- ▶ Look in the mouth.
- ▶ When both breaths go in, start the CPR sequence of 30 compressions and 2 breaths.

8-44

Unconscious, Choking Adult

8-45


Practice

Let's practise this skill >>




8-46

Unconscious, Choking Child

8-47

Practice

Let's practise this skill >>




8-48

Unconscious, Choking Baby




8-49

Practice

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8-50

Breathing and Circulation Emergencies





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No Oxygen: Brain Cells Die




- 0 min.: Breathing stops. Heart will soon stop beating. Clinical death.
- 4-6 min.: Brain damage possible.
- 6-10 min.: Brain damage likely.
- 10+ min.: Irreversible brain damage certain. Biological death.



Breathing and Circulation Emergencies 8-52

Assisting With Medications


- ▶ Person should be capable of self-administering medication.
- ▶ Person must be conscious and able to express any risks with taking medication.
- ▶ Assistance should be limited to preparing medications.
- ▶ Person to take oral medication only if he or she can swallow and read and follow all label or medical instructions.
- ▶ All Five Rights of Medication must be met.



Breathing and Circulation Emergencies • Page 18 8-53

Five Rights of Medication

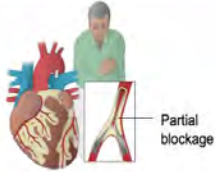
1. Right person
2. Right medication
3. Right amount
4. Right time
5. Right method



Breathing and Circulation Emergencies • Page 18 8-54

Chest Pain

- ▶ Angina
- ▶ Heart attack



Risk Factors for Developing Cardiovascular Disease

- | | |
|------------------------------|-----------------------|
| Controllable factors: | Other factors: |
| ▶ Smoking | ▶ Gender |
| ▶ Poor diet | ▶ Heredity |
| ▶ High blood pressure | ▶ Age |
| ▶ Obesity | |
| ▶ Stress | |
| ▶ Lack of regular exercise | |



Angina: What to Look For

- ▶ Similar signs and symptoms to a heart attack.
- ▶ Pain usually lasts less than 10 min.
- ▶ Pain usually goes away if the person rests.
- ▶ Pain is usually helped by the person's medication.

Signs and symptoms vary from person to person.



Heart Attack: What to Look For

- | | |
|---|--|
| ▶ Squeezing chest pain | ▶ Skin that is bluish or paler than normal |
| ▶ Problems breathing | ▶ Nausea and vomiting |
| ▶ Abdominal or back pain (more common in women) | ▶ Jaw pain |
| ▶ Cold, sweaty skin | ▶ Denial |



Angina and Heart Attack: What to Do

- Check, Call, Care:**
- ▶ Have the person rest comfortably.
 - ▶ Assist the person in taking his or her medications.
 - ▶ Ensure the ABCs are present.



Nitroglycerin

- ▶ Spray or pill is sprayed or placed under the tongue.
- ▶ If person has taken any erectile-dysfunction drugs, advise the person not to take nitroglycerin.

If someone is unconscious, never put anything in his or her mouth.



ASA

- ▶ ASA will not reduce the pain but may reduce the damage to the heart.
- ▶ Do not repeat the dosage.
- ▶ Other pain medications (e.g., ibuprofen) do not have the same effect. Do not substitute!



Stroke: Causes

A **stroke** happens when the blood flow to the brain gets interrupted.

- ▶ A clot in an artery in the brain
- ▶ An artery in the brain that ruptures
- ▶ A tumour



Stroke: What to Look For

- | | |
|-----------------|--|
| F Face | Other signs and symptoms: |
| A Arm | ▶ Sudden, severe headache |
| S Speech | ▶ Dizziness or confusion |
| T Time | ▶ Unconsciousness or temporary loss of consciousness |
| | ▶ Sudden loss of bladder control |



Stroke: What to Do

- Check, Call, Care:**
- ▶ Ensure the ABCs are present.
 - ▶ Have the person rest.
 - ▶ Place the person in the recovery position with the affected side up.
 - ▶ Reassure the person until EMS arrives.



Cardiac Arrest: Causes

Cardiac arrest occurs when the heart stops beating.

- | | |
|--------------------------|---|
| ▶ Cardiovascular disease | ▶ Severe chest injuries |
| ▶ Drowning | ▶ Severe blood loss |
| ▶ Suffocation | ▶ Other heart diseases or abnormalities |
| ▶ Electrocution | |
| ▶ Certain drugs | |



Cardiac Arrest: What to Look For

- ▶ Unconsciousness
- ▶ No signs of normal breathing
- ▶ Gasping, ineffective breathing movements called *agonal respiration* can occur



Cardiopulmonary Resuscitation (CPR)

- ▶ Clinical death occurs when the heart stops. It is reversible.
- ▶ CPR keeps oxygen-rich blood circulating throughout the body.
- ▶ An AED can deliver a shock to re-establish an effective heart rhythm.



CPR

- ▶ CPR uses chest compressions to pump the heart, circulating oxygen-rich blood through the body.
- ▶ Rescue breaths add air so that oxygen is always available.



Compression-Only CPR

- ▶ Continuous compressions pump the heart to circulate oxygen already in a person's blood.
- ▶ Compression-only CPR is suitable when:
 - An adult collapses suddenly.
 - A bystander is unwilling, unable, or uncertain how to perform full CPR.
 - A responder does not have a breathing barrier.
 - A bystander is waiting for trained assistance to arrive.



Compression-Only CPR (continued)

- ▶ It should not be used when caring for:
 - A drowning person
 - A respiratory emergency that may have caused the cardiac arrest
 - A child or baby

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CPR—Adult, Child, or Baby: What to Do

Check, Call, Care:

- ▶ 30 compressions—“push hard, push fast”
- ▶ 2 rescue breaths

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Adult CPR

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Practice

Let's practise this skill >>

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Child CPR

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Practice

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Baby CPR

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Practice

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CADENCE

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Using an AED

- ▶ Turn on the machine.
- ▶ Follow the diagrams to place the pads.
- ▶ Use the age-appropriate pads.
- ▶ Follow the voice prompts.

No one touch the person.
When prompted to give a shock, stand clear and say, "I'm clear, you're clear, everybody's clear."

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A Properly Prepared AED

An AED should have:

- ▶ Razor
- ▶ Scissors
- ▶ Cloth

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Things to Consider When Using an AED

- ▶ Pacemakers
- ▶ Medical patches
- ▶ Implanted defibrillators
- ▶ Person lying in a puddle of water and/or blood
- ▶ Agonal respirations

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Additional Skills for Healthcare Providers

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Healthcare Providers (HCP)

- ▶ Work in teams, have specialized equipment, and advanced training.
- ▶ Skills include:
 - Checking for a pulse and monitoring compressions
 - Rescue breathing
 - Jaw thrust
 - Using bag-valve-mask (BVM) resuscitators in teams
 - Using thumb compressions (for babies) in teams
 - Looking for onset of puberty

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Bag-Valve-Mask (BVM) Resuscitator

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Bag-Valve-Mask

You must have two rescuers to use a BVM:

- ▶ One rescuer opens the person's airway with a head-tilt/chin-lift and/or jaw thrust and puts the mask on the person's face, making sure there is a tight seal.
- ▶ The second rescuer squeezes the bag. Like rescue breathing, the bag should be squeezed smoothly, with just enough volume to make the chest start to rise.

Additional Skills for Healthcare Providers • Page 11

Bag-Valve-Mask for Healthcare Providers




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Practice

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Two-Rescuer Rescue Breathing—Adult or Child: What to Do

Check, Call, Care:

- ▶ Give 2 rescue breaths/ventilations with just enough volume to make the chest start to rise.
- ▶ If both breaths go in, the second rescuer checks for a carotid pulse for no longer than 5 to 10 sec.
- ▶ If there is a pulse, continue rescue breathing:
 - Adult: give 1 breath/ventilation every 5 to 6 sec.
 - Child: give 1 breath/ventilation every 3 to 5 sec.

Additional Skills for Healthcare Providers • Page 20-21

Two-Rescuer Rescue Breathing for an Adult




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Two-Rescuer Rescue Breathing for a Child

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Practice

Let's practise this skill >>






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Two-Rescuer Rescue Breathing—Baby: What to Do

Check, Call, Care:

- ▶ Give 2 rescue breaths/ventilations, with just enough volume to make the chest start to rise.
- ▶ If both breaths go in, the second rescuer checks for a brachial pulse.
- ▶ If there is a pulse, continue rescue breathing: give the baby 1 breath/ventilation every 3 to 5 sec.

Additional Skills for Healthcare Providers • Page 20-21

Two-Rescuer Rescue Breathing for a Baby




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Practice

Let's practise this skill >>






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Two-Rescuer CPR—Adult: What to Do

Check, Call, Care:

- ▶ 30 compressions—"push hard, push fast."
- ▶ 2 rescue breaths/ventilations.
- ▶ Rescuers switch every 2 min. to maintain the quality of CPR.

Additional Skills for Healthcare Providers • Page 11

Two-Rescuer Adult CPR for Healthcare Providers




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Practice

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Two-Rescuer CPR—Child: What to Do


Check, Call, Care:

- ▶ 15 compressions—"push hard, push fast."
- ▶ 2 rescue breaths/ventilations.
- ▶ Rescuers switch every 2 min. to maintain the quality of CPR.

Additional Skills for Healthcare Providers • Page 11


Two-Rescuer Child CPR for Healthcare Providers



Address Skills for Healthcare Providers • Page 11

Practice

Let's practise this skill >>






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Two-Rescuer CPR—Baby: What to Do


Check, Call, Care:

- ▶ 15 compressions—“push hard, push fast.”
- ▶ 2 rescue breaths/ventilations.
- ▶ Rescuers switch every 2 min. to maintain the quality of CPR.

Address Skills for Healthcare Providers • Page 12

Two-Rescuer Baby CPR for Healthcare Providers




Address Skills for Healthcare Providers • Page 13

Practice


Let's practise this skill >>




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**Thank you for
participating in
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