



**Chapter 1:
Healthy
Bodies**

FIRST AID AWARENESS

Quick Thinking Can Save A Life



St. John Ambulance defines **First Aid** as emergency help given to an injured or suddenly ill person using readily available materials.

The objectives of First Aid are to:

- Preserve life
- Prevent the illness or injury from getting worse
- Promote recovery

Reading this article won't make you a qualified first aid practitioner! Organizations like **St John's Ambulance** and the **Canadian Red Cross** are pro's at teaching first aid. Sign up for one of their courses to learn how to do first aid. This article is a general overview of first aid designed to introduce you to the topic and encourage you to learn more about it by signing up for a course!

Who is a first-aider?

A first-aider is someone who takes charge of an emergency scene and gives first-aid for suspected injuries. A first-aider can also protect the casualty's belongings (eg. keep an eye on their purse), reassure family members their loved one is going to be okay, make sure other people in the area stay safe, or call 9-1-1 for help. In most provinces in Canada, ordinary bystanders are not legally obligated to help someone in trouble. Even so, many people decide to be a Good Samaritan and help out as best as they know how. A Good Samaritan is someone who helps another person when they have no legal duty to do so, and when they are not expecting to be rewarded (eg. financially). Whenever you help a person in distress, you should identify yourself and ask their consent (if they are conscious), act accordingly based on the skill and knowledge you have, use common sense, ensure you are acting in the casualty's best interests, and stay with them until you hand them over to medical help.

Have you ever seen a person faint in a shopping mall, or clutch their chest on a public bus? Perhaps your sister cut her hand at home in the kitchen while preparing supper, or the child you were babysitting had an asthma attack. How did you or others around you handle the emergency? It can be very scary when people around us become injured, and even more scary when we are the only ones there who are able to help them. The good news is that taking a course in first aid will help make you more confident in your ability to help others, and will prepare you to know what to do in case an emergency arises. It's especially smart to consider taking a first aid class if you are responsible for other people's lives— eg. If you work as a babysitter or as a lifeguard, or are left in charge of your younger siblings. Anyone who witnesses an emergency can call 9-1-1 and have the operator talk them through the steps of what to do. A basic knowledge of first aid will help you understand what the operator tells you to do, and can help you care for an injured person until an ambulance arrives. You can learn life saving skills in as little as 4 hours! There are some legal issues related to performing first aid which you will learn more about when you take a course. Talk to your instructor or family lawyer if you have any questions!

Ambulance/Emergency 9-1-1

Kids Help Phone (24 hrs)

1-800-668-6868

St. John Ambulance

Provides first-aid training
in cities across Canada

1-866-321-2651

www.sja.ca/bc

Canadian Red Cross

www.redcross.ca

Canadian Safety Council

A non-profit organization
dedicated to safety.

www.safety-council.org

ICBC Road Safety Tips:

www.icbc.com/road_safety

Worker's Compensation Board of BC

Learn more about safe
working conditions on the
jobsite

www.worksafebc.com



WHAT ARE UNIVERSAL PRECAUTIONS?



Universal Precautions are *infection control guidelines* designed to protect people from diseases spread through blood and other body fluids. If you come across an injured person covered in blood, you have no way of knowing if that person has a communicable disease like HIV or Hepatitis that could be passed to you. First Aid is designed to help an injured person, not to infect the helper! Protect yourself and don't discriminate. Assume that every injured

person you come across is potentially infectious, whether they are male or female, adult or child.

Here are some ways to protect yourself while performing first aid:

- Always wear disposable gloves. If these are not available, use a makeshift barrier like regular gloves, a handkerchief, etc.
- If you have cuts or sores, cover them with bandages or disposable gloves before coming in contact with an injured person.
- Use a barrier (eg. a pocket mask with a one-way valve, a face shield, or a plastic baggie with a large hole poked in it) when performing artificial respiration. Avoid covering their nose.
- Ensure all contaminated materials (gloves, bandages, etc.) are disposed of properly and the contaminated area is sanitized.
- Wash your hands with hot water and soap for 5 minutes. Wash contaminated clothing in hot soapy water.

Blood is not the only fluid you need to watch out for. Universal precautions are meant to protect against blood, body tissues, spinal fluid, amniotic fluid (when a woman is pregnant), and semen or vaginal secretions.

Universal precautions don't usually apply to body fluids like saliva, urine, sweat, tears, snot, or vomit. However, if small amounts of infected blood are mixed in with these fluids you CAN get infected, so it can't hurt to always take the proper precautions when performing first-aid no matter what! Not everyone who encounters an emergency will have rubber gloves—do the best you can to improvise, with regular gloves, a handkerchief, a plastic bag, etc.

CLEARING UP SOME FUNNY IDEAS ABOUT FIRST AID

- Slapping a raw steak over a black eye **won't** do any benefit except that the steak is cold and might act as a makeshift ice pack. The greasy meat can infect or inflame your eye—**use a bag of crushed ice or a bag of frozen peas instead.**
- Slathering butter on a burn is one of the worst things you can do! It can trap the heat, leading to infection and scarring. **Run cool water over the burn instead.**
- Sucking venom from a snakebite might be a heroic act in the movies, but doctors say this old fashioned method can infect the area and could harm you. **Victims of snake-bite should get to a hospital as soon as possible.**

Note: Although it is often used in the news to describe a fatality, the word **casualty** usually refers to an *injured person* when used in a discussion about first aid. So if you hear about someone giving artificial respiration to the casualty, that doesn't mean they were breathing into a dead person's mouth!

WHAT IS EMERGENCY SCENE MANAGEMENT ?

When an emergency happens (eg. a patron starts choking in a restaurant) there is usually quite a bit of confusion as people determine whether or not an emergency is taking place, and if so, who should take charge. A St. John Ambulance first-aider typically takes a series of steps to protect the safety of all people involved and to ensure proper first-aid is done in a timely manner. This series of steps is called Emergency Scene Management (ESM) and consists of:

Scene Survey: Taking control of the scene and finding out what happened. This includes assessing hazards and making sure the area is safe, calling out for help to attract bystanders, identifying yourself as a first-aider and getting consent to let you help them, going for or sending someone for medical help (calling 9-1-1).

Primary Survey: Assessing each casualty for life-threatening injuries and giving life-saving first-aid. The ABC's of the Primary Survey are:

Airway: Ensure a clear airway. Ask "What Happened?" to see if the casualty is able to respond. If casualty does not respond, open airway and look, listen and feel for breathing.

Breathing: Check for effective breathing. If casualty is not breathing, assist with breathing (special training required).

Circulation: Control obvious and severe bleeding. Check for shock and do a rapid body survey to check for signs of internal bleeding or hidden external bleeding.

Secondary Survey: Perform a more thorough check for additional injuries that could benefit from first-aid when medical help will not be arriving shortly,

Ongoing Casualty Care: Stay with the casualty until medical help arrives. Provide first aid for shock, check the ABC's often, do not allow the casualty to eat or drink anything, and report to medical personnel both what happened and what first aid (if any) was administered.

*** Take a First Aid Course to Learn More!**

FUNNY IDEAS ABOUT FIRST AID—CONTINUED

- Peeing on a jellyfish sting has not been scientifically proven to help. **Use vinegar to alleviate the sting.**
- Never throw your head back to stop a nosebleed. This could lead to blood getting into your lungs or stomach. **Instead, pinch the fleshy part of your nose for 10 minutes, leaning forward instead of backward until the bleeding stops.** Seek medical help if necessary.
- Squeezing a stinger out of a bee sting can squeeze the venom into a person's blood system. **Brush the stinger off with a credit card instead and apply a paste of baking soda and water.** Call 9-1-1 if they have a reaction.



CARDIOPULMONARY RESCUCITATION (CPR):

CPR is two basic life support skills put together: artificial respiration (which provides oxygen to the lungs) and artificial circulation (which transports the oxygen to the rest of the body through the blood). CPR is necessary when a person is unconscious, not breathing, and has no pulse. The purpose of CPR is to circulate oxygenated blood through the body and to the brain until the heart starts beating on its own, or until medical help takes over.



CPR involves the rescuer giving compressions (pushing down) on the casualty's chest at the rate of approximately 100 compressions per minute. After about every 30 compressions, the rescuer will then give the casualty two breaths into their mouth to send oxygen to the lungs, then they will resume compressions to transfer that air throughout the body, then repeat breaths and compressions. Basically, the rescuer is performing the job of the heart until the heart is able to take over again! CPR will be continued until the casualty responds, or until medical help takes over. If a casualty's heart begins beating and a pulse is present, but they still aren't breathing, the rescuer would switch from CPR to artificial respiration only.

Knowing proper CPR means knowing how deep to compress the chest, the proper ratio of breathing and compressions and many other things, it is important to take a course in CPR if you want to learn how to properly perform it!

ABDOMINAL THRUSTS

When a person is choking, you should encourage them to cough up the object. Don't beat them on the back as this could lodge the object deeper into the throat. Ask them a question ("Are you choking?") to see if they are able to respond. If the casualty cannot speak, breathe or cough, begin abdominal thrusts (The Heimlich Maneuver). Place a foot between the casualty's feet, while standing behind them, and trace your hands from the hip bones to the front of the stomach. Hold one fist over the other, just above the belly button, and thrust inward and upward with a sudden forceful thrust. Make sure you are not pushing against the ribs. To learn how to properly deal with a choking casualty, take a first aid course! If the casualty becomes unconscious, gently lower them to the floor and perform chest compressions similar to the CPR procedure mentioned above. The only difference with a choking victim is that you will tilt the head back and check the casualty's mouth every time before giving a breath to see if your compressions dislodged the object stuck in their throat. Chest compressions will create air pressure to force the object out.



HELPING OUT IN A MEDICAL EMERGENCY:

Even if you aren't trained in first aid, there are ways you can help out if you come across an emergency.

- Offer to call 9-1-1 then report back to the first-aider
- Reassure the casualty and their family
- Keep an eye on the casualty's belongings
- Ask bystanders to stand back to give the casualty space
- Keep the casualty warm by covering them with a blanket or coat

COMMON MEDICAL EMERGENCIES:

An ASTHMA ATTACK is a sudden worsening of asthma symptoms caused by a tightening of muscles around the airway that can cause wheezing, coughing and difficulty breathing. Most people with serious asthma will carry a special inhaler or "puffer" in their bag in case of an attack. Serious asthma attacks require medical attention.

ANAPHYLAXIS is a severe allergic reaction that can result in many possible symptoms including hives, itchy or flushed skin, vomiting, and difficulty talking or breathing. Some common allergies include nuts, bee stings, and shellfish. Most people with anaphylaxis carry around an Epi-Pen auto injector to give themselves a dose of medicine that will help slow down the reaction. Most standard first aid courses will teach you how to inject an Epi-Pen when medically necessary. Medical help is necessary when a person experiences a serious allergic reaction.

DIABETES is a condition in which the body does not properly control the amount of insulin (which turns sugar into energy) in the blood. Too much or too little sugar in the blood can lead to serious problems, like hypoglycemia (low blood sugar) or hyperglycemia (high blood sugar). If a person is confused and disoriented, and you think they are having a diabetic emergency, call for medical help immediately. If a casualty is conscious, and tells you they have diabetes, you could offer them something sweet to eat or drink, like fruit juice. Extra sugar will help if the person's blood sugar is too low, but will not harm them if their sugar is too high already. They might also carry a special syringe of glucagon for injection.

When **SEVERE BLEEDING** is the problem, make sure the first-aider follows Universal Precautions and does not put themselves in contact with blood or bodily fluids without using disposable gloves. Sterile dressings should be applied to the wound, with continued direct pressure from your hand. Don't remove a bloody bandage to swap it for a new one—just keep adding them on top of each other and continue the pressure. Call for medical help immediately. If you step on a nail or get bitten by a dog, ask your parents to take you to the doctor right away to make sure you weren't infected. Don't pull an embedded object (like a nail) from your skin, apply a dressing around it until a doctor is able to remove it.

A BURN needs to be cooled immediately by immersing it in cool water (eg. a sink or bathtub) or by pouring cool water over it. Don't use butter, lotion, or ointment on a burn before a doctor is consulted. If the burn is electrical, don't touch a person that has been zapped by electricity if they are still in contact with it, as the current could be passed through them to you.

If a person **BREAKS A BONE** or you suspect they have a sprain, don't move them. Call for a teacher or adult you trust if the injury seems minor, or 9-1-1 if you come across someone that is seriously hurt (eg. after a car accident). **Never move a person that might have a head, neck or spine injury unless their life is in danger.**

Tip: When you come across a casualty who is unable to tell you what is wrong (eg. a small child, or a confused and disoriented adult), try checking their wrists and neck for a Medic Alert bracelet or necklace. Lots of people with asthma, severe allergies, diabetes, or other serious medical conditions wear a bracelet to tell paramedics about their medical history when they are unable to speak for themselves.



Resources

Available from the Fraser Valley Regional Library

HOW BIG BROTHERS/BIG SISTERS CAN HELP THEIR LITTLE:

- ⇒ Encourage your Little to take a First Aid course with you. Ask your Mentoring Coordinator if he or she can arrange a special deal with a local organization for a reduced fee.
- ⇒ Talk about emergency situations with your Little and discuss what each of you would do in sample scenarios.
- ⇒ Make sure you know how to keep your Little safe. Everyone who works or volunteers with children should know at least basic first aid or take a compact course designed to protect kids in your care. If people entrust their children to you, you want to be able to keep them safe in any circumstance.

For LITTLES (6-12)

- *The Kid's Guide to First Aid: All About Bruises, Burns, Stings, Sprains, and Other Ouches.* Karen Buhler Gale. VT: Williamson, 2002.
- *Help! Emergencies That Could Happen to You and How to Handle Them.* Mary Lou Vandenburg. Minn: Lerner Publications, 1975.
- *First Aid For You.* Rebecca Weber. Minn: Compass Point Books, 2004.
- *At Home.* Pete Sanders. Toronto: Gloucester Press, 1989.
- *On the Road.* Pete Sanders. Toronto: Gloucester Press, 1989.
- *Jenny Archer to the Rescue!* Ellen Conford. Boston: Little Brown, 1990.

For TEENS (13-17)

- *Babysitting 101 (VHS): Your Complete Guide to Becoming the Best Babysitter!* Nashville: Production 101, 1997.
- *The Canadian Babysitter's Handbook.* Caroline Greene and St John Ambulance. Toronto: Random House, 1995.
- **For BIG BROTHERS/BIG SISTERS & PARENTS**
- *Emergency Action (VHS): The Life-Saving First Aid Video For the Whole Family.* Chicago: Activideo, 1988
- *First Aid for Children Fast.* John Hopkins Children's Center. Dorling Kindersley, 1995.



REASONS WHY WE SHOULD ALL LEARN FIRST-AID:

- Someone can suffer permanent brain damage or death from not breathing for four to six minutes; it can take more than that for an ambulance to arrive. Learning basic CPR can help keep a casualty alive until medical help arrives.
- The majority of accidents happen around the home, meaning you are more likely to administer first-aid to someone you know than a stranger.
- To clear up misperceptions and learn correct procedures.
- You don't need any expensive medical equipment; there are many ways to improvise what you need.
- First-aid certification looks good on a resume and can open many doors for you.
- Families will be more comfortable hiring you as a babysitter if you have first-aid certification.
- When you learn first-aid, you will also learn how to perform it on yourself when you are alone.
- To impress your friends with your vast knowledge on all things first-aid.
- To become more confident in your own abilities.
- To Save a Life.**

Thank you to the following members of our Panel for Reviewing this Article:

- ◇ Dr. Lionel Traverse, MD
- ◇ Kirsten Yaffe, St. John's Ambulance

