



LIFESAVING SOCIETY  
*The Lifeguarding Experts*

## 2015 CPR and Resuscitation Guidelines Summary of Changes in Lifesaving Society Literature

October 2016

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### Introduction

Every five years, the International Liaison Committee on Resuscitation (ILCOR) reviews the latest science on first aid and resuscitation and updates its treatment recommendations as necessary. The latest changes were announced in October 2015. The Lifesaving Society then works with its partner training agencies to ensure a consistent interpretation and consensus in guidelines for Canada. The Society is now updating its literature accordingly.

There are a variety of “tweaks” and some new information. The important thing to know is that there is no change to the resuscitation standards for drowning victims and your existing training is still effective in saving lives.

In addition to editorial housekeeping, updates to the first aid and resuscitation content will be introduced in the Society’s literature as each publication comes up for reprint. We anticipate that the updated literature will be available in the Fall 2016 and no later than December 31. This summary provides a synopsis of the changes in the Society’s updated literature.

### Canadian First Aid Manual

*You can identify the updated printing at a glance: the front cover reads “With the 2015 CPR guidelines” in upper left corner. The publication date on the inside cover will be Fourteenth Printing, revised October 2016.*

### Using mobile technologies in EMS activation

The 2015 Guidelines emphasize the use of mobile technologies for quick activation of EMS including using bystanders to call and using speaker mode to communicate with EMS dispatchers.

In the *Canadian First Aid Manual*, this principle will be incorporated in revised wording in **EMS** (p. 8) and in **Action: ABC Priorities** (p. 22).

### Canadian First Aid Manual (*cont'd*)

#### Compression depth: adult victim

The 2015 Guidelines put an upper limit on the depth of compressions for an adult victim. Rescuers should compress the chest at least 5 cm but not more than 6 cm.

In the *Canadian First Aid Manual*, this change will be incorporated in **DEPTH: HOW FAR TO PUSH DOWN THE BRESTBONE** (p.27).

#### Compression rate

“Push hard, Push fast” remains valid for effective CPR. In the 2015 Guidelines “Fast” means 100 to 120 compressions per minute. The Guidelines suggest rescuers aim for 30 compressions in 15 to 18 sec.

In the *Canadian First Aid Manual*, this new range will be reflected in **THREE TIPS FOR GOOD, EFFECTIVE CPR** and in **Counting** (p. 28).

#### F.A.S.T. stroke assessment

The 2015 Guidelines suggest first aiders can use the acronym “F.A.S.T.”(Face. Arms. Speech. Time) to help assess a suspected stroke victim.

In the *Canadian First Aid Manual*, F.A.S.T will be introduced in a sidebar to **Stroke** (p. 35).

#### Tourniquets for major bleeding

The 2015 Guidelines suggest the use of a tourniquet when direct pressure fails to control life-threatening external limb bleeding.

In the *Canadian First Aid Manual*, this change will be reflected in **Treatment for Major bleeding** and in additional copy on applying a tourniquet (p. 36).

#### Auto-injectors

The 2015 Guidelines recommend a second dose of epinephrine be administered after 5 minutes if the signs and symptoms do not improve after the initial dose.

In the *Canadian First Aid Manual*, this recommendation will be included under **Treatment in Severe allergies (Anaphylaxis)** on p. 45. Copy related to Twinject auto-injectors will be removed because this device is no longer manufactured.

## Canadian First Aid Manual (*cont'd*)

### Diabetes

The 2015 Guidelines suggest the preferred first aid treatment option is to provide glucose tablets to an individual suffering hypoglycemia. Hard candy like Mentos, Skittles, or Jelly beans are a second choice. Last choice would be orange or other fructose juice drinks.

In the *Canadian First Aid Manual*, this recommendation will be included under **Treatment** for **Diabetes** (p. 46).

### Antibiotic ointment

The *Canadian First Aid Manual* (**Wounds**, p. 49) includes the use of antibiotic ointment on superficial wounds to promote healing for those who have no sensitivity to antibiotics such as penicillin.

### Concussions

The 2015 Guidelines recognize the difficulty first aiders have in recognizing – concussions – a specific and common type of head injury. The Guidelines talk about the mechanism of injury, how to recognize a concussion, and the importance of removing the victim from activity to see early medical help.

The updated *Canadian First Aid Manual* will contain a **Concussion** sidebar to **Head Injuries** (p. 52). **Signs and symptoms** and **Treatment** will both be updated.

### Spineboard removals and the life-over-limb principle

The 2015 Guidelines acknowledge a lack of evidence to support the benefits of spinal immobilization and the use of immobilization devices by first aiders.

In a water rescue, a spineboard is mainly an extraction device for a breathing victim with a suspected spinal injury. However, when the need for CPR is indicated, use of a spineboard should never delay victim removal and the immediate commencement of CPR. In the *Canadian First Aid Manual*, this will be reflected in **Circulation** (p. 58) and in **Use of spineboards** (p. 59).

## Canadian First Aid Manual (*cont'd*)

### Open chest wound

The 2015 Guidelines recommend that leaving an open chest wound exposed is preferable to taping the wound with plastic because of the life-threatening adverse effects this may have.

A non-adhering and permeable dressing that allows liquids or gasses to pass through is preferred. In the *Canadian First Aid Manual*, **Treatment** under **Open chest wound** (p. 63) will be updated accordingly.

### High-voltage wires

The *Canadian First Aid Manual* (under **Treatment** in **Electrical burns**, p. 69) stresses that first aiders should never attempt to move or remove high-voltage wires and power lines.

### Frostbite

In **Treatment** under **Frostbite** (p. 76), the *Canadian First Aid Manual* will be updated to reflect the 2015 Guidelines recommendations on treatment for rewarming body parts suffering frostbite: warm water immersion for 20-30 min. and avoidance of chemical warmers.

### Oxygen

The 2015 Guidelines caution oxygen supplementation may be contraindicated for some victims who do not warrant its use.

The *Canadian First Aid Manual*, under **Oxygen Administration** (p. 84) recommends the use of oxygen for drowning victims, decompression sickness, carbon monoxide poisoning, respiratory arrest, and for victims with a pulse oximetry reading of less than 94%. **Pulse Oximetry** will be addressed on p. 88.

## Canadian Lifesaving Manual

*You can identify the updated printing at a glance: the front cover reads “With the 2015 CPR guidelines” in upper left corner. The publication date on the inside cover will be Twenty-first Printing, revised October 2016.*

### Spineboard removals and the life-over-limb principle

The 2015 Guidelines acknowledge a lack of evidence to support the benefits of spinal immobilization and the use of immobilization devices by first aiders.

In a water rescue, a spineboard is mainly an extraction device for a breathing victim with a suspected spinal injury. However, when the need for CPR is indicated, use of a spineboard should never delay victim removal and the immediate commencement of CPR. In the *Canadian Lifesaving Manual*, this will be reflected in a new sidebar on (p. 5-19) and in **EMS transport and spineboards** (p. 5-22).

### High-voltage wires

The *Canadian Lifesaving Manual* illustration (p. 6-2) showing a rescuer removing a live wire with a branch is removed. Rescuers should never attempt to move or remove high-voltage wires and power lines.

### Using mobile technologies in EMS activation

The 2015 Guidelines emphasize the use of mobile technologies for quick activation of EMS including using bystanders to call and using speaker mode to communicate with EMS dispatchers.

In the *Canadian Lifesaving Manual*, this advice will be incorporated in revised procedures for one- and two-rescuer CPR (p. 7-13 and 7-17).

### Compression depth: adult victim

The 2015 Guidelines put an upper limit on the depth of compressions for an adult victim. Rescuers should compress the chest at least 5 cm but not more than 6 cm.

In the *Canadian Lifesaving Manual*, this change will be incorporated in one- and two-rescuer CPR procedures (p. 7-13 and 7-17).

## Canadian Lifesaving Manual (*cont'd*)

### Compression rate

“Push hard, Push fast” remains valid for effective CPR. In the 2015 Guidelines “Fast” means 100 to 120 compressions per minute. The Guidelines suggest rescuers aim for 30 compressions in 15 to 18 sec.

In the *Canadian Lifesaving Manual*, this change will be captured in **Compression Rate** (p. 7-14) and **Three tips for good effective CPR** (p. 7-15).

### Anaphylaxis

The 2015 Guidelines recommend a second dose of epinephrine be administered after 5 minutes if the signs and symptoms do not improve after the initial dose.

In the *Canadian Lifesaving Manual*, this recommendation will be included under **Treatment** (p. 8-3).

### F.A.S.T. stroke assessment

The 2015 Guidelines suggest first aiders can use the acronym “F.A.S.T.”(Face. Arms. Speech. Time) to help assess a suspected stroke victim.

In the *Canadian Lifesaving Manual*, F.A.S.T will be introduced in a sidebar to **Stroke** (p. 8-8).

### Antibiotic ointment

The *Canadian Lifesaving Manual* (**External Bleeding**, p. 8-9) includes the use of antibiotic ointment on superficial wounds to promote healing for those who have no sensitivity to antibiotics such as penicillin.

### Tourniquets for major bleeding

The 2015 Guidelines suggest the use of a tourniquet when direct pressure fails to control life-threatening external limb bleeding.

In the *Canadian Lifesaving Manual*, this change will be reflected in **Treatment** under **External Bleeding** and in a sidebar **Applying a tourniquet** (p. 8-9).

## Canadian Lifesaving Manual (*cont'd*)

### Concussions

The 2015 Guidelines recognize the difficulty first aiders have in recognizing concussions – a specific and common type of head injury. The Guidelines talk about the mechanism of injury, how to recognize a concussion, and the importance of removing the victim from activity to see early medical help.

The *Canadian Lifesaving Manual* will present information on **Concussions** in a sidebar to **Head Injuries** (p. 8-11).

### Open chest wound

The 2015 Guidelines recommend that leaving an open chest wound exposed is preferable to taping the wound with plastic because of the life-threatening adverse effects this may have.

A non-adhering and permeable dressing that allows liquids or gasses to pass through is preferred. The *Canadian Lifesaving Manual* will reflect this recommendation in **Treatment of Chest wounds** (p. 8-13).

### Diabetes

The 2015 Guidelines suggest the preferred first aid treatment option is to provide glucose tablets to an individual suffering hypoglycemia. Hard candy like Mentos, Skittles, or Jelly beans are a second choice. Last choice would be orange or other fructose juice drinks.

In the *Canadian Lifesaving Manual*, this recommendation will be included under **Treatment for Diabetic Emergencies** (p. 8-18).

### Frostbite

In Treatment under **Frostbite** (p. 8-23), the *Canadian Lifesaving Manual* will be updated to reflect the 2015 Guidelines recommendations on treatment for rewarming body parts suffering frostbite: warm water immersion for 20-30 minutes and avoidance of chemical warmers.

### Canadian CPR-HCP Manual

You can identify the updated printing at a glance: the front cover reads “With the 2015 CPR guidelines” in upper left corner. The publication date on the inside cover will be Fourth Printing, revised October 2016.

#### Chains of survival

The 2015 Guidelines outline 2 distinct “chains of survival” which reflect the setting as well as the availability of rescuers and resources. The updated *Canadian CPR-HCP Manual* will describe chains of survival for: the In-hospital cardiac arrest (IHCA); and the Out-of-hospital cardiac arrest (OHCA).

#### High performance teams

The 2015 Guidelines recommend dedicated in-hospital resuscitation teams that specialize in cardiac arrest response. These teams will perform best when they know who is leading the resuscitation effort, who is performing what role, and how to communicate and work together most effectively. In the updated *Canadian CPR-HCP Manual*, new content will be included in **High Performance Teams** (p. 3.)

#### Angina and Heart Attack

The updated *Canadian CPR-HCP Manual* (p. 4) will include a description of angina and heart attack consistent with the descriptions in the *Canadian First Aid Manual*. The updated treatment section will include reference to the use of ASA.

#### Witnessed versus unwitnessed response to child or infant victim

**Step 3: Phone EMS & Get AED** (p. 5) in the **Early EMS Activation** section will be revised to include the recommended response to a child or infant victim for either a witnessed or unwitnessed collapse.

#### Compression depth and rate

The 2015 Guidelines put an upper limit on the depth of compressions for an adult victim. Rescuers should compress the chest at least 5 cm but not more than 6 cm.

“Push hard, Push fast” remains valid for effective CPR. In the 2015 Guidelines “Fast” means 100 to 120 compressions per minute. The Guidelines suggest rescuers aim for 30 compressions in 15 to 18 sec.

In the updated *Canadian CPR-HCP Manual*, these changes will be incorporated in: **Circulation** (p. 6); the **Cardiopulmonary Resuscitation** chart (p. 8); and in the Tips for Effective CPR sidebar (p. 9).

### **Alert: Lifeguarding in Action**

*You can identify the updated printing at a glance: the publication date on the inside cover will be Nineteenth Printing, October 2016.*

#### **Epinephrine Auto-injectors**

The 2015 Guidelines recommend a second dose of epinephrine be administered after 5 minutes if the signs and symptoms do not improve after the initial dose.

In *Alert*, this change will be reflected in **Epinephrine Auto-injectors** (*Alert Insert*, p. 3). Reference to specific brand names of auto-injectors will be removed.

#### **Sun exposure**

In 2016, the Canadian Cancer Society updated its sun protection recommendations which should be of special interest to all lifeguards working in outdoor settings. The Cancer Society's higher minimum sunscreen recommendation (SPF 30) will be updated in *Alert* under **The Sun** (p. 24).

#### **Spineboard removals and the life-over-limb principle**

The 2015 Guidelines acknowledge a lack of evidence to support the benefits of spinal immobilization and the use of immobilization devices by first aiders.

In a water rescue, a spineboard is mainly an extraction device for a breathing victim with a suspected spinal injury. However, when the need for CPR is indicated, use of a spineboard should never delay victim removal and the immediate commencement of CPR. In *Alert*, this principle will be reflected in new wording under **Management of Spinal Injuries** (p. 53).

#### **Oxygen**

The 2015 Guidelines caution that oxygen may be contraindicated for some victims. In *Alert*, reference to no danger in receiving high concentrations of oxygen for a short period will be removed (**Oxygen**, p. 83).

### Bronze Medals Award Guide

*You can identify the updated printing at a glance: the front cover reads “With the 2015 CPR guidelines.” The publication date on the inside cover will be Sixteenth Printing, revised, October 2016.*

#### Compression depth and rate

The 2015 Guidelines put an upper limit on the depth of compressions for an adult victim. Rescuers should compress the chest at least 5 cm but not more than 6 cm.

“Push hard, Push fast” remains valid for effective CPR. In the 2015 Guidelines “Fast” means 100 to 120 compressions per minute. The Guidelines suggest rescuers aim for 30 compressions in 15 to 18 sec.

In the *Bronze Medals Award Guide*, these changes will be incorporated in the Notes to Bronze Star, Item 10 (p.11); Bronze Medallion, Item 7 (p; 26); Bronze Cross, Item 5 (p. 44) and Item 7c (p.48).

#### ASA

The 2015 Guidelines encourage a person who is suffering chest pains to chew aspirin. In the *Bronze Medals Award Guide*, the existing wording in the **Notes** to Bronze Medallion, Item 9b (p. 30) will be updated.

#### Tourniquets for major bleeding

The 2015 Guidelines suggest the use of a tourniquet when direct pressure fails to control life-threatening external limb bleeding. Use of tourniquets is not required in Bronze Medallion, but candidates should understand the purpose of a tourniquet (new **Note** will be added to Bronze Medallion, Item 9c, p. 31 in the *Bronze Medals Award Guide*).

### National Lifeguard Award Guide

*You can identify the updated printing at a glance: the front cover reads “With the 2015 CPR guidelines.” The publication date on the inside cover will be Fourth Printing, revised, October 2016.*

#### Spineboard removals and the life-over-limb principle

The 2015 Guidelines acknowledge a lack of evidence to support the benefits of spinal immobilization and the use of immobilization devices by first aiders.

In a water rescue, a spineboard is mainly an extraction device for a breathing victim with a suspected spinal injury. However, when the need for CPR is indicated, use of a spineboard should never delay victim removal and the immediate commencement of CPR. In the *National Lifeguard Award Guide*, this will be reflected in **Notes** to the **Management of spinal-injured victim**: Pool, Item 9c (p.20); Waterpark, Item 11c (p. 40); Waterfront, Item 10c (p. 59); Surf, Item 9c (p. 77).

## National Lifeguard Award Guide (*cont'd*)

### Compression depth and rate

The 2015 Guidelines put an upper limit on the depth of compressions for an adult victim. Rescuers should compress the chest at least 5 cm but not more than 6 cm.

“Push hard, Push fast” remains valid for effective CPR. In the 2015 Guidelines “Fast” means 100 to 120 compressions per minute. The Guidelines suggest rescuers aim for 30 compressions in 15 to 18 sec.

In the *National Lifeguard Award Guide*, these changes will be incorporated in the **Notes to Cardiopulmonary Resuscitation** (p. 80, 81).

### ASA

The 2015 Guidelines encourage a person who is suffering chest pains to chew aspirin. In the *National Lifeguard Award Guide*, the existing wording in the **Notes to Heart attack or angina** (p. 83) will be updated.

### Tourniquets for major bleeding

The 2015 Guidelines suggest the use of a tourniquet when direct pressure fails to control life-threatening external limb bleeding. Use of tourniquets is not required in National Lifeguard, but candidates should understand the purpose of a tourniquet (new **Note** will be added to **External bleeding**, p. 83 in the *National Lifeguard Award Guide*).

### Stroke assessment acronym

The 2015 Guidelines suggest first aiders can use the acronym “F.A.S.T.”(Face. Arms. Speech. Time) to help assess a suspected stroke victim.

In the *National Lifeguard Award Guide*, the F.A.S.T acronym will be introduced in the **Notes to Stroke/TIA** (p. 83).

### Diabetes

The 2015 Guidelines suggest the preferred first aid treatment option is to provide glucose tablets to an individual suffering hypoglycemia. Hard candy like Mentos, Skittles, or Jelly beans are a second choice. Last choice would be orange or other fructose juice drinks.

In the *National Lifeguard Award Guide*, the **Notes to Diabetes** (p. 86) will be updated accordingly.

### First Aid Award Guide

*You can identify the updated printing at a glance: the front cover reads “With the 2015 CPR guidelines.” The publication date on the inside cover will be Fifteenth Printing, revised, October 2016.*

#### Basic First Aid Item 4b

In the revised printing, Item 4b (Simulate the treatment of an unconscious victim with an obstructed airway) will be deleted. This change has nothing to do with the 2015 Guidelines update. Feedback indicated that the requirement of 30 compressions in this item was too demanding for many of young candidates. The removal of Item 4b allows these individuals to earn a first aid award. For candidates who can perform effective chest compressions, Basic First Aid can be easily offered with the relevant CPR certification.

In the *First Aid Award Guide*, this change will be reflected in **Basic First Aid At-a-glance** (p. 1). The Basic First Aid test sheet will be revised accordingly.

#### “Can I help” Must See

The updated *First Aid Award Guide* includes a new Must See “Rescuer identifies self – “Can I help?” in obstructed airway: conscious victim items (EFA, Item 7, p. 16; CPR, Item 3, p. 48; Item 4, p. 49).

A corresponding Note (“For a child or infant victim, “Can I help?” is directed to a parent or caregiver if present.”) will be added to EFA Item 7 and CPR Items 3 and 4.

#### Tourniquets

The updated *First Aid Award Guide* will include a new **Note to Circulatory emergencies: external bleeding** (EFA, Item 11c, p. 22) about the use of tourniquets. “Use of tourniquets is not required for this item. However, candidates should understand the purpose of a tourniquet (e.g., apply when direct pressure fails to stop life-threatening external limb bleeding).”

#### Anaphylaxis

The 2015 Guidelines recommend a second dose of epinephrine be administered after 5 minutes if the signs and symptoms do not improve after the initial dose.

In the *First Aid Award Guide*, this recommendation will be captured in the Notes to **Anaphylaxis victim** (Item 4, p. 44) in **Anaphylaxis Rescuer**.

## First Aid Award Guide (*cont'd*)

### Oxygen

The 2015 Guidelines caution oxygen supplementation may be contraindicated for some victims who do not warrant its use.

In **Notes to Airway Management: Oxygen supplementation** (**Airway Management**, Item 5, p. 62), the updated *First Aid Award Guide* says, “Victims are assessed with a pulse oximeter unless they have suffered a drowning incident, decompression sickness (SCUBA incident), carbon monoxide poisoning, or are in respiratory arrest.”

### First Aid Test

Three questions will be revised in the First Aid Test: EFA, Q18; SFA, Q26 and Q28. The existing **First Aid Test Answer Key** remains unchanged.