DROWNING CHAIN OF SURVIVAL

PREVENT DROWNING
Be safe in and around water

RECOGNIZE DISTRESS
Ask someone to call for help

PROVIDE FLOTATION
To prevent submersion

REMOVE FROM WATER
Only if safe to do so

PROVIDE CARE AS NEEDED
Seek medical attention

PREVENTION RECOGNITION, RESPONSE, AND RESCUE TREATMENT
About the Lifesaving Society

Saving lives for over 100 years

The Lifesaving Society is a full service provider of programs, products, and services designed to prevent drowning. The Society saves lives and prevents water-related injuries through its training programs, Water Smart® public education, drowning research, aquatic safety management and lifesaving sport. The Society is a national volunteer organization and registered charity composed of ten provincial/territorial branches, tens of thousands of individual members, and over 4,000 affiliated swimming pools, waterfronts, schools, and clubs.

The Society has been teaching swimming, water safety and water rescue in Canada since 1896. Established in England (1891) as the Swimmers’ Lifesaving Society, it became The Royal Lifesaving Society in 1904. Today, it is known simply as the Lifesaving Society. The Lifesaving Society is a leader and partner in the delivery of water safety education throughout Canada and around the world.

Teaching Canadians to save themselves and rescue others

Annually 1,200,000 Canadians participate in the Lifesaving Society’s swimming, lifesaving, lifeguard, first aid, and leadership programs. Each year, the Society certifies thousands of instructors who provide the leadership for its training programs. Over 30,000 Canadians earn the Society’s Bronze Medallion each year. As Canada’s lifeguarding experts, the Lifesaving Society sets the standard for lifeguard training and certifies Canada’s National Lifeguards.

Making Canadians Water Smart

The Lifesaving Society focuses Water Smart drowning prevention efforts on people most at risk — like men fishing in small boats — or on those who can make a significant difference, such as parents of young children. The Society delivers Water Smart messages through its swim program, through the media and community action. The Society’s Swim to Survive® Program provides the essential minimum skills required to survive an unexpected fall into deep water.

Drowning Research

The Lifesaving Society conducts research into fatal and non-fatal drowning, aquatic injury and rescue interventions. Ongoing research and analysis supports the Society’s evidence-based water rescue training and Water Smart drowning prevention education.

Setting the Standard

The Lifesaving Society establishes aquatic safety standards and consults on aquatic safety issues for the aquatic industry, governments and the judiciary. The Society offers a suite of services to help aquatic facility operators maintain and improve safe pool and waterfront operations. The Society performs aquatic safety audits and serves as experts in legal cases involving aquatic safety.

Lifesaving Society programs with first aid and resuscitation content, including Government of Alberta and Government of Northwest Territories workplace approved first aid, undergo a regular review and update process. The Society may be required to implement changes to workplace first aid programs by the Government of Alberta or Government of Northwest Territories, or may identify changes to first aid and resuscitation content through reviewing scientific evidence and clinical research.

The Lifesaving Society contributes research and reviews scientific evidence through the Royal Life Saving Society Commonwealth and International Life Saving Federation. The Lifesaving Society is a member of the Canadian Consensus Guidelines Task Force which is compromised of representatives from the Lifesaving Society, the Heart and Stroke Foundation, Canadian Red Cross, St. John Ambulance, and Canadian Ski Patrol. The task force reviewed the latest science on first aid and resuscitation and built consensus publishing the 2016 Canadian Consensus Guidelines on First Aid and CPR.

The consensus guidelines along with other research and position statements from the European Resuscitation Council (ERC) and the International Lifesaving Federation (ILS) were used to guide updates to Lifesaving Society program content.

Disclaimer: This guide includes a summary of changes reflective of Lifesaving Society Canada content and literature. It also contains changes required by the Government of Alberta for workplace approved first aid programs. All changes have been reviewed by Society medical advisors.

Lifesaving Society Programs

Beginning in 1891 with the first Bronze Medallion, the Lifesaving Society recognized that first aid skills were a critical part of the lifesaving process. In the 1950s, the Society was the first Canadian organization to adopt mouth-to-mouth over manual methods of artificial respiration and since then has endeavored to maintain the most up-to-date and comprehensive first aid program in the country.

The Lifesaving Society has a standing committee to review and analyze new and emerging research in the field of first aid treatment and drowning resuscitation. It is important that instructors teach content from the current literature and program materials provided by the Lifesaving Society.

The Society has updated programs impacted by legislated changes to workplace first aid training programs, identified by the Government of Alberta and Government of Northwest Territories, and through review and consideration of the current Canadian Consensus Guidelines on First Aid and Resuscitation.

Overwhelmingly there was validation of the science and protocols aligning to the 2010 guidelines. Lifesaving Society content changes in the Mandatory Update are a reflection of learnings that represent best practices and improve the immediate care and long-term recovery potential of casualties.

Mandatory Update Guide

This guide is designed as a resource for Affiliate Delivery Partners, Instructor Trainers and Instructors who teach and evaluate Lifesaving Society programs with first aid and resuscitation content.

Affiliate Delivery Partners, Instructor Trainers and Instructors will use this guide to familiarize themselves with the updated program content, literature, program materials, policies and procedures, and implementation of the Mandatory Update for Bronze Medals, National Lifeguard, Lifesaving First Aid, and CPR programs.
Section 1: First Aid and Resuscitation
2016 Mandatory Update

Section 1 outlines the process, time frame, and roles and responsibilities for implementing and completing the Lifesaving Society First Aid and Resuscitation Content 2016 Mandatory Update (Mandatory Update). The intent of the Mandatory Update is to inform Affiliate Delivery Partners, Lifesaving First Aid Instructors and Instructor Trainers, National Lifeguard Instructors and Instructor Trainers, and Lifesaving Instructors and Instructor Trainers of changes to content, literature, program materials, and policies and procedures so they are prepared to deliver Lifesaving Society programs using updated content and materials.

Time Frame

<table>
<thead>
<tr>
<th>Action</th>
<th>Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifesaving Society First Aid and Resuscitation Content 2016 Mandatory Update Launch.</td>
<td>October 27, 2016</td>
</tr>
<tr>
<td>All Instructor courses/clinics (original and recertification) must be delivered by updated Instructor Trainer(s) with new materials.</td>
<td>November 1, 2016</td>
</tr>
<tr>
<td>Updated Policies and Procedures for workplace first aid implemented</td>
<td>November 1, 2016 or sooner</td>
</tr>
<tr>
<td>Lifesaving First Aid (Emergency First Aid, Standard First Aid, and Aquatic Emergency Care), CPR, CPR-HCP, Oxygen Administration, and National Lifeguard must be delivered by updated Instructor(s) with new materials.</td>
<td>January 1, 2017 or sooner</td>
</tr>
<tr>
<td>Bronze Medals must be delivered by updated Instructor with new materials.</td>
<td>May 1, 2017 or sooner</td>
</tr>
</tbody>
</table>

Completing the Mandatory Update

Instructor Trainers and Instructors may complete the Mandatory Update in either of two (2) ways:
- Individually through a distance process
- Through an affiliate scheduled in-service process

Mandatory Update Process

- Review and understand the Mandatory Update implementation time frame.
- Review and understand the roles and responsibilities for Affiliate Delivery Partners, Instructor Trainers and Instructors.
- Review and understand changes to first aid and resuscitation content.
- Review and understand changes to policies and procedures.
- Review and understand changes to the literature and program materials.
- Review and understand changes to course delivery and administration.
- Download and/or order all required and optional updated literature and program materials.
- Complete and return the 2016 Mandatory Update Individual Agreement and Order Form to the Society.
Roles and Responsibilities

**Affiliate Delivery Partners**
- Plan for implementation of updated content in program delivery and ongoing staff training
- Communicate implementation plan to staff
- Support staff during rollout and implementation
- Use updated Instructor Trainers to teach and evaluate original and recertification: Lifesaving First Aid Instructor courses, National Lifeguard Instructor clinics, and Lifesaving Instructor courses effective November 1, 2016 or sooner
- Use updated Instructors to teach and evaluate original and recertification courses: Emergency First Aid, Standard First Aid, Aquatic Emergency Care, CPR, CPR-HCP, and National Lifeguard effective January 1, 2017 or sooner
- Use updated Instructors to teach and evaluate original and recertification courses: Bronze Medals effective May 1, 2017 or sooner
- Understand the roles and responsibilities of Instructor Trainers and Instructors

**Instructor Trainers**
- Complete the Mandatory Update prior to the delivery of Instructor courses/clinics (original and recertification)
- Teach and evaluate leadership and training programs with first aid or resuscitation content using updated program content, literature and program materials
- Support Instructors and Affiliates in your community
- Adhere to the Lifesaving Society Code of Conduct for Leadership Volunteers and deliver programs following policies and procedures

**Instructors**
- Complete the Mandatory Update within the implementation time frame
- Teach and evaluate programs with first aid or resuscitation content using updated program content, literature and program materials
- Adhere to the Lifesaving Society Code of Conduct for Leadership Volunteers and deliver programs following policies and procedures

Section 2: Planning for Implementation

Section 2 outlines how Affiliate Delivery Partners may choose to implement in-service training to facilitate staff completing the Mandatory Update. Implementation impacts to programs have been outlined for Affiliates, Instructor Trainers and Instructors.

**Planning for Implementation**

**Mandatory Update In-service**
- In-service training to facilitate the Mandatory Update led by an affiliate representative:
  - The required Mandatory Update presentation provided by the Society is available for download in the toolkit at www.lifesaving.org and must be used during Mandatory Update in-services.
  - The Affiliate representative will use the presentation to guide staff through the mandatory update content and implementation process.
- In-service training to facilitate the Mandatory Update led by a Lifesaving Society representative:
  - Affiliate delivery partners may request that a Society representative deliver the in-service training (fee applies).

**Leadership Programs (Lifesaving Instructor, National Lifeguard Instructor, Lifesaving First Aid Instructor)**
- By November 1, 2016 or sooner confirm that updated first aid and resuscitation content is implemented in Lifesaving Instructor courses, National Lifeguard Instructor Clinics, and Lifesaving First Aid Instructor Courses.
- By November 1, 2016 or sooner confirm that Instructor Trainers scheduled to teach and evaluate leadership programs (original and recertification) have completed the Mandatory Update.

**Workplace Approved First Aid Training Programs (Emergency First Aid, Standard First Aid, and Aquatic Emergency Care)**
- Updated policies and procedures for Government of Alberta and Government of Northwest Territories workplace approved first aid implemented are effective November 1, 2016.
- By January 1, 2017 or sooner confirm that updated first aid and resuscitation content is implemented in workplace first aid programs (original and recertification).
- By January 1, 2017 or sooner confirm that Instructors scheduled to teach and evaluate workplace first aid programs (original and recertification) have completed the Mandatory Update.
- Affiliates have the option of delivering updated workplace first aid programs to candidates if the scheduled instructor has completed the Mandatory Update. Instructors who have not completed the Mandatory Update can still deliver the existing workplace first aid programs until December 31, 2016.
Section 3: First Aid and Resuscitation Content

Summary of Changes

Section 3 outlines a summary of changes to first aid, resuscitation, water rescue, and drowning chain of survival.

Details of each change including the rational behind the change may be found in Appendices A - E.

Resuscitation Content Changes
- Compression rate and depth have been adjusted.
- The use of mobile technology is being recognized for early access to EMS without delaying care.
- Reinforcement for minimizing interruptions to CPR care.

First Aid Content Changes
- Concussion information and awareness added to program content.
- Clarification on administration of epinephrine auto-injectors for anaphylactic emergencies.
- Clarification on ASA administration for cardiac emergencies.
- Stroke assessment system introduced.
- Preferences for dietary sugar introduced.
- Tourniquet use to control severe bleeding added as a knowledge only item.
- Updated treatment of chest wounds to avoid secondary injuries.
- Introduced and updated information on handling of avulsed teeth in care of dental emergencies.
- Updated treatment for care of fractures and other bone and joint injuries.
- Updated treatment for frostbite injuries and added statement against use of chemical warmers to rewarm frostbite.
- Updated information on how to clean wounds.

Drowning and Water Rescue
- Introduction of guidelines for National Lifeguards to use a choreographed approach to resuscitation where multiple National Lifeguards are available.
- Updated response protocol for aquatic victims with suspected spinal injuries who require CPR.
- Introduction of a Drowning Chain of Survival Position Statement.

CPR-Health Care Provider Changes
- Health care providers have two (2) chains of survival: one for in-hospital care and one for out of hospital care.
- Increased emphasis of a team approach and system which should be implemented in health care settings.
- Clarification that use of simultaneous assessment of pulse and breathing should always be used.
- Updated guidelines for phoning EMS for a witnessed collapse of a child/infant casualty.

Oxygen Administration Changes
- Updated casualty evaluation criteria for administration of supplemental oxygen.
- Introduced requirement to use pulse oximeter during casualty evaluation and administration of supplemental oxygen.
- Addition of pulse oximeter as required equipment for oxygen administration courses.
Section 4: Policies and Procedures

Section 4 outlines and reinforces newly implemented changes to policies and procedures for workplace first aid programs required by the Government of Alberta. These changes have been directly communicated to Affiliate Delivery Partners and Lifesaving First Aid Instructors/Instructor Trainers in a communique. All changes to policies and procedures are reflected in the current Policies and Procedures document on the Lifesaving Society website www.lifesaving.org. Changes to policies and procedures are effective November 1, 2016 or sooner and apply to all workplace first aid programs.

Lifesaving Society Policy Changes

New: The Lifesaving Society is updating test sheets and making each one fillable. The Society requests that Affiliate Delivery Partners, Instructor Trainers and Instructors use and submit fillable test sheets for quality assurance.

Government of Alberta Workplace Approved First Aid Program Policy Update

<table>
<thead>
<tr>
<th>Program</th>
<th>Current Policy</th>
<th>Change</th>
<th>Updated Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workplace Approved Standard First Aid</td>
<td>Standard First Aid must be re-certified within the currency period (3 years).</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>和 Aquatic Emergency Care (Standard First Aid)</td>
<td>Aquatic Emergency Care must be re-certified within the currency period (2 years).</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Individuals who are no longer current must receive retraining.</td>
<td>Yes</td>
<td>Individuals whose certifications are no longer current cannot re-certify and must attend an original course.</td>
</tr>
<tr>
<td>Aquatic Emergency Care (original)</td>
<td>Aquatic Emergency Care (original) may be challenged by candidates who hold a current standard first aid approved by the Government of Alberta.</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Candidates may re-attempt a failed recertification as long as prerequisites are still met.</td>
<td>Yes</td>
<td>Individuals who are unsuccessful in completing a Standard First Aid Re-certification OR an Aquatic Emergency Care Re-certification are required to complete an original course. No repeat re-certification courses are permitted.</td>
</tr>
</tbody>
</table>

Rationale for Change

Changes to policy for Standard First Aid (including Aquatic Emergency Care as a workplace Standard First Aid program) have been made to align with the Government of Alberta required policy for workplace first aid programs.
## Section 5: Lifesaving Society Literature and Program Materials

### Revised Program Resources

Section 5 outlines the impacts the Mandatory Update has on Lifesaving Society literature and program materials. The following chart summarizes which literature and program materials include changes. Following this chart are the details of changes to the affected literature and program materials.

<table>
<thead>
<tr>
<th>Program Family</th>
<th>Award Guide</th>
<th>Lesson Plans</th>
<th>Candidate Reference Manuals</th>
<th>Candidate Workbook</th>
<th>Course/ Clinic Booklet</th>
<th>Additional Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lifesaving First Aid and CPR</td>
<td>National Lifeguard</td>
<td>Canadian First Aid Manual</td>
<td>Lifesaving First Aid Candidate Workbook (comes with Canadian First Aid Manual in the Lifesaving First Aid Candidate Pack or ordered separately for recertification candidates)</td>
<td>Lifesaving First Aid Instructor Course Booklet (comes in National Lifeguard Instructor Pack)</td>
<td>Test Sheets</td>
</tr>
<tr>
<td></td>
<td>Bronze Medals and CPR</td>
<td>CPR and AED Award Guide</td>
<td>Canadian Lifesaving Manual</td>
<td>National Lifeguard Waterfront/Surf Candidate Workbook</td>
<td>Lifesaving Instructor Course Booklet</td>
<td>CPR and AED Check Sheets</td>
</tr>
<tr>
<td></td>
<td>Lifesaving First Aid Award Guide</td>
<td>CPR and AED Lesson Plans</td>
<td>Canadian CPR Manual</td>
<td>National Lifeguard Instructor Clinic Lesson Plans</td>
<td>Swim and Lifesaving Instructor Lesson Plans</td>
<td>Policies and Procedures</td>
</tr>
<tr>
<td>Where to Find</td>
<td>Order from Lifesaving Society</td>
<td>In the Toolkit and Resources section under member login at <a href="http://www.lifesaving.org">www.lifesaving.org</a> or order from Lifesaving Society</td>
<td>Order from Lifesaving Society</td>
<td>Lifesaving First Aid Lesson Plans</td>
<td>Lifesaving First Aid Instructor Lesson Plans</td>
<td></td>
</tr>
</tbody>
</table>

### Lifesaving First Aid Program Resources

#### Lifesaving First Aid Award Guide

The updated Lifesaving First Aid Award Guide can be identified at a glance as the front cover reads “With the 2015 CPR guidelines.” The publication date on the inside cover will be Tenth Printing, October 2016.

#### Topic | Change
--- | ---
New in this Edition | "New in this Edition" pages have been added at the front of the Award Guide to help identify changes.
At-a-glance | All At-a-glance pages are now located at the front of the Lifesaving First Aid Award Guide.
"At-a-glance" pages reflect new award items and show the item name instead of providing a full item description.
Award Item Order | Some items haven been moved within the Lifesaving First Aid Award Guide to group similar items together and eliminate the need to duplicate items.
Workplace First Aid Alignment | Wording of award items has been updated for clarity and to better align with language used by legislation/regulations for workplace first aid.
In achieving better alignment with workplace first aid the term “casualty” has been used instead of “victim”. During delivery of Lifesaving Society First Aid programs the terms “victim” and “casualty” may be used interchangeably.
The “Must See’s” for most Injury/Ilness award items have been updated for clarity separating emergency scene management from the ability to recognize and provide appropriate care and treatment of injuries/illnesses.
Injuries/ Illnesses Award Item “Must See’s” | New award item: Emergency Scene Management has been added to evaluate candidate knowledge, skill and judgement in managing emergency scenes.
Emergency Scene Management | Item 40
Notes | Award item notes have been updated and enhanced for most award items.
Updates align with workplace first aid and 2015 Canadian Consensus Guidelines for First Aid and Resuscitation.
First Aider Communication | New award item: First Aider Communication, has been added to the Lifesaving First Aid Award Guide. This item includes Management of Bystanders (Item 6 in previous edition) in addition to “Must See’s” for first aider communication with: casualties, workplace, and EMS.
First Aider Communication | Item 4

### Additional Notes

- Lifesaving First Aider communication has been added to the Lifesaving First Aid Program. This item includes Management of Bystanders (Item 6 in previous edition) in addition to “Must See’s” for first aider communication with: casualties, workplace, and EMS.
- All At-a-glance pages are now located at the front of the Lifesaving First Aid Award Guide.
- Wording of award items has been updated for clarity and to better align with language used by legislation/regulations for workplace first aid.
- During delivery of Lifesaving Society First Aid programs the terms “victim” and “casualty” may be used interchangeably.
- The “Must See’s” for most Injury/Ilness award items have been updated for clarity separating emergency scene management from the ability to recognize and provide appropriate care and treatment of injuries/illnesses.
- Award item notes have been updated and enhanced for most award items.
- Updates align with workplace first aid and 2015 Canadian Consensus Guidelines for First Aid and Resuscitation.
- New award item: First Aider Communication, has been added to the Lifesaving First Aid Award Guide. This item includes Management of Bystanders (Item 6 in previous edition) in addition to “Must See’s” for first aider communication with: casualties, workplace, and EMS.

**Note:** See Section 2 for information on Inventory Management during implementation.
### Scene Assessment

- New award item: Scene Assessment, has been added to the Lifesaving First Aid Award Guide.
- Scene Assessment "Must See’s" have been removed from Primary Assessment item.

- Item 5
- Item 6

### One Rescuer CPR - Infant

- "Must See’s" for AED Protocol have been removed as they are a knowledge only item and not evaluated.

- Item 11

### Respiratory Emergencies

- Anaphylaxis and drowning are now included as part of the "Must See’s" in the Respiratory Emergencies item.

- Item 21

### Severe Bleeding

- The previous External Bleeding item has been updated to reflect that this item is for the recognition and treatment of severe bleeding, including internal bleeding.

- Item 23

### Wounds

- New award item: Wounds, has been added to the Lifesaving First Aid Award Guide. This item better reflects a variety of injuries which first aiders may be required to treat.

- Wounds are included as a specific section in the Canadian First Aid Manual but were not clearly identified as required knowledge and skill in the Lifesaving First Aid Award Guide.

- Item 26

### Fainting

- Fainting is now included as part of the "Must See’s" in the Care of Unconscious Casualty item.

- Item 28

### Environmental Emergencies

- Treatment of environmental emergencies is dependant on the severity of the injury/illness.

- "Must See’s" have been updated to reflect various treatment options dependant on severity.

- Item 33

### Bone and Joint Injuries

- Bone and Joint Injuries "Must See’s" have been updated to reflect specific treatment for sprains, dislocations, fractures, and broken pelvis.

- Item 34

### Abdominal or Chest Injury

- Abdominal or Chest Injury "Must See’s" have been updated to reflect specific treatment for open pneumothorax (sucking chest wound), flail chest, abdominal injury, and abdominal injury with protruding organs.

- Updates to "Must See’s" include using non-occlusive dressings for chest wounds.

- Item 35

### Poisoning

- Poisoning "Must See’s" have been updated to reflect treatment for ingested, injected, inhaled, and absorbed/contact poisons.

- Item 38

### 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 Lifesaving First Aid Award Guide, this is reflected in "Notes".

- Item 32

### 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 Lifesaving First Aid Award Guide, these changes are incorporated in "Notes."

- Item 9
- Item 10
- Item 11
- Item 12
- Item 13
- Item 14
- Item 18
- Item 19
- Item 20

### ASA

The 2015 Guidelines encourage a person who is suffering chest pains to chew ASA.

In the Lifesaving First Aid Award Guide, the existing wording in "Notes" has been updated.

- Item 24

### 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 in not required in Lifesaving First Aid programs, but candidates should understand the purpose of a tourniquet.

A new "Note" has been added in the Lifesaving First Aid Award Guide.

- Item 23

### Stroke assessment acronym

The 2015 Guidelines suggest that a stroke assessment system such as "F.A.S.T." (Face. Arms. Speech. Time) may assist first aiders in quick recognition and activation of EMS for a casualty who has a suspected stroke.

The example stroke assessment system "F.A.S.T." is introduced in the Lifesaving First Aid Award Guide "Notes".

- Item 25
### Canadian First Aid Manual

The updated Canadian First Aid Manual can be identified at a glance as 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.

#### Diabetic Shock

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 Lifesaving First Aid Award Guide, this is reflected in “Notes.”

#### Oxygen Administration

<table>
<thead>
<tr>
<th>Item</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>Oxygen Administration items have been updated to reflect the use of pulse oximetry while using supplemental oxygen as part of the care of casualties in a first aid setting.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>Oxygen Administration items have been updated to reflect the use of pulse oximetry while using supplemental oxygen as part of the care of casualties in a first aid setting.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>Oxygen Administration items have been updated to reflect the use of pulse oximetry while using supplemental oxygen as part of the care of casualties in a first aid setting.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>Oxygen Administration items have been updated to reflect the use of pulse oximetry while using supplemental oxygen as part of the care of casualties in a first aid setting.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Oxygen Administration items have been updated to reflect the use of pulse oximetry while using supplemental oxygen as part of the care of casualties in a first aid setting.</td>
</tr>
</tbody>
</table>

### Topic Change Location of Change (page number)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (page number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using mobile technologies in EMS activation</td>
<td>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.</td>
<td>8, 22</td>
</tr>
<tr>
<td>Compression depth: adult victim</td>
<td>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.</td>
<td>27</td>
</tr>
<tr>
<td>Compression rate</td>
<td>“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.</td>
<td>28</td>
</tr>
<tr>
<td>F.A.S.T. stroke assessment</td>
<td>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.</td>
<td>35</td>
</tr>
<tr>
<td>Tourniquets for major bleeding</td>
<td>The 2015 Guidelines suggest the use of a tourniquet when direct pressure fails to control life-threatening external limb bleeding.</td>
<td>36</td>
</tr>
</tbody>
</table>

#### Section 5

The updated Canadian First Aid Manual can be identified at a glance as 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.
<table>
<thead>
<tr>
<th>Section 5</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Auto-injectors</strong></td>
<td>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 is included under Treatment in Severe allergies (Anaphylaxis). Text related to Twinject auto-injectors has been removed because this device is no longer manufactured.</td>
</tr>
<tr>
<td><strong>Diabetes</strong></td>
<td>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 is included under &quot;Treatment&quot; for Diabetes.</td>
</tr>
<tr>
<td><strong>Antibiotic ointment</strong></td>
<td>The Canadian First Aid Manual (Wounds) includes the use of antibiotic ointment on superficial wounds to promote healing for those who have no sensitivity to antibiotics such as penicillin.</td>
</tr>
<tr>
<td><strong>Concussions</strong></td>
<td>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 contains a &quot;Concussion&quot; sidebar to Head Injuries. &quot;Signs and symptoms&quot; and &quot;Treatment&quot; have been updated.</td>
</tr>
<tr>
<td><strong>Spineboard removals and the life-over-limb principle</strong></td>
<td>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 is reflected in &quot;Circulation&quot; and in &quot;Use of spineboards&quot;.</td>
</tr>
<tr>
<td><strong>Open chest wound</strong></td>
<td>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, &quot;Treatment&quot; under Open chest wound has been updated accordingly.</td>
</tr>
<tr>
<td><strong>High-voltage wires</strong></td>
<td>The Canadian First Aid Manual (under &quot;Treatment&quot; in Electrical burns) stresses that first aiders should never attempt to move or remove high-voltage wires and power lines.</td>
</tr>
<tr>
<td><strong>Frostbite</strong></td>
<td>In &quot;Treatment&quot; under Frostbite, the Canadian First Aid Manual has been 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.</td>
</tr>
<tr>
<td><strong>Oxygen</strong></td>
<td>The 2015 Guidelines caution oxygen supplementation may be contraindicated for some victims who do not warrant its use. The Oxygen Administration chapter in the Canadian First Aid Manual, 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%.</td>
</tr>
</tbody>
</table>
Canadian CPR-HCP Manual
The updated Canadian CPR-HCP Manual can be identified at a glance as 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.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (page number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chains of survival</td>
<td>The 2015 Guidelines outline 2 distinct &quot;chains of survival&quot; which reflect the setting as well as the availability of rescuers and resources. The updated Canadian CPR-HCP Manual describes chains of survival for: the In-hospital cardiac arrest (IHCA); and the Out-of-hospital cardiac arrest (OHCA).</td>
<td>1</td>
</tr>
<tr>
<td>High performance teams</td>
<td>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 is included in High Performance Teams.</td>
<td>3</td>
</tr>
<tr>
<td>Angina and Heart Attack</td>
<td>The updated Canadian CPR-HCP Manual includes a description of angina and heart attack consistent with the descriptions in the Canadian First Aid Manual. The updated treatment section includes reference to the use of ASA.</td>
<td>4</td>
</tr>
<tr>
<td>Witnessed versus unwitnessed response to child or infant victim</td>
<td>&quot;Step 3: Phone EMS &amp; Get AED&quot; in the Early EMS Activation section has been revised to include the recommended response to a child or infant victim for either a witnessed or unwitnessed collapse.</td>
<td>5</td>
</tr>
<tr>
<td>Compression depth and rate</td>
<td>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. &quot;Push hard, Push fast&quot; remains valid for effective CPR. In the 2015 Guidelines &quot;Fast&quot; 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 have been incorporated in: “Circulation”, the Cardiopulmonary Resuscitation chart, and in the “Tips for Effective CPR” sidebar.</td>
<td>6, 8, 9</td>
</tr>
</tbody>
</table>

Canadian Oxygen Administration Manual
The updated Canadian Oxygen Administration Manual can be identified at a glance as the front cover reads "2016 Edition". The publication date on the inside cover will be Fourth Printing, revised October 2016.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (page number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim Types</td>
<td>The 2015 Guidelines caution oxygen supplementation may be contraindicated for some victims who do not warrant its use. The Canadian Oxygen Administration Manual 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%.</td>
<td>Front Cover</td>
</tr>
<tr>
<td>Pulse Oximeter</td>
<td>The 2015 Guidelines recommends the use of a pulse oximeter in victim assessment. The Canadian Oxygen Administration Manual has been updated to include information on the use of pulse oximeters in the assessment and care of victims requiring supplemental oxygen.</td>
<td>Front Cover, Inside Pages, Back Cover</td>
</tr>
<tr>
<td>Bag-Valve-Mask</td>
<td>The Canadian Oxygen Administration Manual now includes guidelines for flow rate of supplemental oxygen when used with a bag-valve-mask.</td>
<td>Inside Back Cover</td>
</tr>
<tr>
<td>Oxygen Tank Safety</td>
<td>The Canadian Oxygen Administration Manual has been updated to include guidelines for use of supplemental oxygen in conjunction with an AED.</td>
<td>Inside Back Cover</td>
</tr>
</tbody>
</table>
## National Lifeguard Program Resources

### National Lifeguard Award Guide

The updated National Lifeguard Award Guide can be identified at a glance as the front cover reads “With the 2015 CPR guidelines.” The publication date on the inside cover will be Fourth Printing, revised, October 2016. Refer to Appendix B for revised Award Guide pages.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (Option - Item number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spineboard removals and the life-over-limb principle</td>
<td>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 &quot;Notes&quot; to the Management of spinal-injured victim.</td>
<td>Pool - 9c Waterpark - 11c Waterfront - 10c Surf - 9c</td>
</tr>
<tr>
<td>Compression depth and rate</td>
<td>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. &quot;Push hard, Push fast&quot; remains valid for effective CPR. In the 2015 Guidelines &quot;Fast&quot; 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 &quot;Notes&quot; to Cardiopulmonary Resuscitation.</td>
<td>Appendix A (page 81, 81)</td>
</tr>
<tr>
<td>ASA</td>
<td>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 &quot;Notes&quot; to Heart attack or angina will be updated.</td>
<td>Appendix A (page 83)</td>
</tr>
<tr>
<td>Tourniquets for major bleeding</td>
<td>The 2015 Guidelines suggest the use of a tourniquet when direct pressure fails to control life-threatening external limb bleeding. Use of tourniquets in not required in National Lifeguard, but candidates should understand the purpose of a tourniquet. A new &quot;Note&quot; will be added in the National Lifeguard Award Guide.</td>
<td>Appendix A (page 83)</td>
</tr>
</tbody>
</table>

### 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.

### 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 will be updated accordingly.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (Option - Item number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke assessment acronym</td>
<td>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.</td>
<td>Appendix A (page 83)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>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 &quot;Notes&quot; to Diabetes will be updated accordingly.</td>
<td>Appendix A (page 86)</td>
</tr>
</tbody>
</table>
Alert: Lifeguarding in Action

The updated Alert: Lifeguarding in Action can be identified at a glance as the publication date on the inside cover will be Nineteenth Printing, October 2016.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (page number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epinephrine Auto-injectors</td>
<td>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. Reference to specific brand names of auto-injectors will be removed.</td>
<td>Insert Page 3</td>
</tr>
<tr>
<td>Sun exposure</td>
<td>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. The Society’s web address (<a href="http://www.cancer.ca">www.cancer.ca</a>) will also be provided.</td>
<td>24</td>
</tr>
<tr>
<td>Spineboard removals and the life-over-limb principle</td>
<td>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.</td>
<td>53</td>
</tr>
<tr>
<td>Oxygen</td>
<td>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.</td>
<td>83</td>
</tr>
</tbody>
</table>

Bronze Medals and CPR Program Resources

Bronze Medals Award Guide

The updated Bronze Medals Award Guide can be identified at a glance as the front cover reads “With the 2015 CPR guidelines.” The publication date on the inside cover will be Sixteenth Printing, revised, October 2016. Refer to Appendix B for revised Award Guide pages.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (Item number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression depth and rate</td>
<td>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”.</td>
<td>Bronze Star Item 10 Bronze Medallion Item 7 Bronze Cross Item 5, 7c</td>
</tr>
<tr>
<td>ASA</td>
<td>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” will be updated.</td>
<td>Bronze Medallion Item 9b</td>
</tr>
<tr>
<td>Tourniquets for major bleeding</td>
<td>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. A new “Note” will be added in the Bronze Medals Award Guide.</td>
<td>Bronze Medallion Item 9c</td>
</tr>
</tbody>
</table>
### CPR and AED Award Guide

The updated CPR and AED Award Guide can be identified at a glance as the front cover reads “With the 2015 CPR guidelines.” The publication date on the inside cover will be Fourth Printing, October 2016.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (Item number)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workplace First Aid Alignment</strong></td>
<td>Wording in award items has been updated for clarity and to better align with language used by legislation/regulations for workplace first aid. In achieving better alignment with workplace first aid the term “casualty” has been used instead of “victim”. During delivery of Lifesaving Society First Aid programs the terms “victim” and “casualty” may be used interchangeably.</td>
<td></td>
</tr>
<tr>
<td><strong>Notes</strong></td>
<td>Award item notes have been updated and enhanced for most award items. Updates align with workplace first aid and 2015 Canadian Consensus Guidelines for First Aid and Resuscitation.</td>
<td></td>
</tr>
<tr>
<td><strong>Added Items</strong></td>
<td>Award guide items have been added for Principles of First Aid, Self Protection, and Critical Incident Stress Management.</td>
<td>Item 1 Item 2 Item 18</td>
</tr>
<tr>
<td><strong>Unconscious Obstructed Airway</strong></td>
<td>The Obstructed Airway - Unconscious item has been split into Obstructed Airway - Unconscious Adult, Obstructed Airway - Unconscious Child, and Obstructed Airway - Unconscious Infant</td>
<td>Item 13 Item 14 Item 15</td>
</tr>
<tr>
<td><strong>Scene Assessment</strong></td>
<td>New award item: Scene Assessment, has been added to the Lifesaving First Aid Award Guide. Scene Assessment “Must See’s” have been removed from Primary Assessment item.</td>
<td>Item 3 Item 4</td>
</tr>
<tr>
<td><strong>One Rescuer CPR - Infant</strong></td>
<td>“Must See’s” for AED Protocol have been removed as they are a knowledge only item and not evaluated.</td>
<td>Item 8</td>
</tr>
</tbody>
</table>

**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 Lifesaving First Aid Award Guide, these changes have been incorporated in the “Notes” to Cardiopulmonary Resuscitation.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (Item number)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASA</strong></td>
<td>The 2015 Guidelines encourage a person who is suffering chest pains to chew aspirin.</td>
<td>Item 16</td>
</tr>
<tr>
<td><strong>Stroke assessment acronym</strong></td>
<td>The 2015 Guidelines suggest that a stroke assessment system such as “F.A.S.T.” (Face. Arms. Speech. Time) may assist first aiders in quick recognition and activation of EMS for a casualty who has a suspected stroke. The example stroke assessment system “F.A.S.T” has been introduced in the Lifesaving First Aid Award Guide “Notes”.</td>
<td>Item 17</td>
</tr>
</tbody>
</table>
### Canadian Lifesaving Manual

The updated Canadian Lifesaving Manual can be identified at a glance as the front cover reads "With 2015 CPR guidelines" in the upper left corner. The publication date on the inside front cover will be Twenty-first Printing, revised October 2016.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (page number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spineboard removals and the life-over-limb principle</td>
<td>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 extrication device for a breathing victim with a suspected spinal injury. However, when the need for CPR is indicated, use of a spineboard should not delay victim removal and the immediate commencement of CPR.</td>
<td>5-22</td>
</tr>
<tr>
<td>High-voltage wires</td>
<td>The Canadian Lifesaving Manual illustration (p.6-2) showing a rescuer removing a live wire with a branch is removed and a sidebar (p. 6-3) advises rescuer to never attempt to move or remove high-voltage wires and power lines.</td>
<td>6-2, 6-3</td>
</tr>
<tr>
<td>Using mobile technologies in EMS activation</td>
<td>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.</td>
<td>7-13, 7-17</td>
</tr>
<tr>
<td>Compression depth: adult victim</td>
<td>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.</td>
<td>7-13, 7-17</td>
</tr>
<tr>
<td>Compression rate</td>
<td>&quot;Push hard, Push fast.&quot; 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” and “Three tips for good effective CPR”.</td>
<td>7-14, 7-15</td>
</tr>
</tbody>
</table>

### Section 5

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (page number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaphylaxis</td>
<td>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 &quot;Treatment&quot;.</td>
<td>8-3</td>
</tr>
<tr>
<td>Antibiotic ointment</td>
<td>The Canadian Lifesaving Manual includes the use of antibiotic ointment on superficial wounds to promote healing for those who have no sensitivity to antibiotics such as penicillin.</td>
<td>8-9</td>
</tr>
<tr>
<td>Tourniquets for major bleeding</td>
<td>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 &quot;Treatment&quot; under External Bleeding and in a sidebar “Applying a tourniquet”.</td>
<td>8-9</td>
</tr>
<tr>
<td>Concussions</td>
<td>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.</td>
<td>8-11</td>
</tr>
<tr>
<td>Open chest wound</td>
<td>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 gases to pass through is preferred. The Canadian Lifesaving Manual will reflect this recommendation in an “Open chest wounds” sidebar to Chest wounds.</td>
<td>8-13</td>
</tr>
<tr>
<td>Diabetes</td>
<td>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.</td>
<td>8-18</td>
</tr>
</tbody>
</table>
In “Treatment” under Frostbite, 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 Manual**

The updated Canadian CPR Manual can be identified at a glance as the front cover reads "With 2015 CPR guidelines" in the upper left corner. The publication date will be Fourth Printing, revised October 2016.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Change</th>
<th>Location of Change (page number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using mobile technologies in EMS activation</td>
<td>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.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>In the Canadian CPR Manual, this advice will be incorporated in revised procedures for one and two-rescuer CPR.</td>
<td></td>
</tr>
<tr>
<td>Compression depth: adult victim</td>
<td>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.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>In the Canadian CPR Manual, this change will be incorporated in one- and two-rescuer CPR procedures.</td>
<td></td>
</tr>
<tr>
<td>Compression rate</td>
<td>“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.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>In the Canadian CPR Manual, this change will be captured in &quot;Compression Rate&quot; and &quot;Three tips for good effective CPR.&quot;</td>
<td></td>
</tr>
<tr>
<td>ASA</td>
<td>The 2015 Guidelines encourage a person who is suffering chest pains to chew ASA.</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>In the Canadian CPR Manual, the existing wording will be updated.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix A: Resuscitation Content Updates

Details of Changes

Appendix A contains the details of changes to resuscitation content. Affiliate Delivery Partners who offer and Instructor Trainers and Instructors teaching and evaluating Lifesaving First Aid (including CPR/CPR-HCP), National Lifeguard, and Bronze Medals are required to understand and implement these content changes.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Hands-only CPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>Hands-only CPR is presented as a knowledge only option for directing untrained bystanders to provide compressions to support care.</td>
</tr>
<tr>
<td>Change</td>
<td>No</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>N/A</td>
</tr>
<tr>
<td>Rationale</td>
<td>It is important to note that there has been no change regarding hands-only (compression-only) CPR in Society programs.</td>
</tr>
</tbody>
</table>

- Trained rescuers will continue to provide rescue breaths along with compressions when performing CPR (30:2).
- Candidates must perform rescue breaths as part of the CPR standard in order to be certified.
- If a bystander is not trained in CPR, EMS dispatchers will direct them to provide hands-only CPR for the adult victim who suddenly collapses.
- Hands-only CPR can be taught as a knowledge item as it would be appropriate for trained rescuers who do not have access to a pocket mask and are uncomfortable with direct mouth to mouth contact.

<table>
<thead>
<tr>
<th>Topic</th>
<th>EMS and USE of Mobile Phones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>A single rescuer who is alone (no bystanders) will immediately activate EMS, retrieve an AED (if available), and then start CPR on an adult. The single rescuer will perform 5 cycles (2 minutes) of CPR on a child or infant prior to calling 911 and retrieving the AED (if available).</td>
</tr>
<tr>
<td>Change</td>
<td>Yes</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>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. If a mobile phone and/or service is not available, the traditional method of sending a bystander or the rescuer leaving victim to find a phone and call EMS is still appropriate.</td>
</tr>
<tr>
<td>Rationale</td>
<td>Mobile phone are often readily available to be accessed to immediately contact EMS without delay to resuscitation. The use of mobile phones on speaker mode allows the rescuer to talk to dispatch while assessing and treating the victim. Rescuer effectiveness may be enhanced through supportive communication with EMS.</td>
</tr>
</tbody>
</table>
Instructor Tool

A CPR Protocol chart has been included as a tool for instructors. The only changes to CPR protocol are to reflect the 2016 updates to compression rate, compression depth for adult casualties and include the note on minimizing interruptions.

### Effective CPR

**Current Practice**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Ratio (compressions to breaths): 30:2 - No change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Compression rate: 100/minute</td>
</tr>
<tr>
<td></td>
<td>Compression Depth:</td>
</tr>
<tr>
<td></td>
<td>Adult: 5cm (2 inch)</td>
</tr>
<tr>
<td></td>
<td>Child: At least 1/3 the anterior/posterior diameter of the chest (about 5cm or 2 inches)</td>
</tr>
<tr>
<td></td>
<td>Infant: At least 1/3 the anterior/posterior diameter of the chest (about 4cm or 1.5 inches)</td>
</tr>
</tbody>
</table>

**Change**

Yes

**2016 Updates**

Compression Depth: 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 (2 inches) but not more than 6 cm (2.4 inches).

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.

Minimize Interruptions: Interruptions to chest compressions should be less than 10 seconds to maintain effectiveness.

**Rationale**

The latest research reinforces that high quality CPR (to include adequate rate, depth and recoil) improves survival rates.

A small study found that compression depths exceeding 6 centimetres (2.4 inches) in an adult may be associated with increased rates of non-life threatening injury when compared with compression depths of 5 to 6 centimetres (2.0-2.4 inches).

The suggested rate of 100-120 compressions/minute were linked to the highest survival rates. Often, the faster a rescuer compresses the chest, the shallower the compression depth becomes or the chest is not able to fully rise between compressions resulting in a decrease in circulation.

It is important not to confuse compression rate (the speed at which compressions are performed) with compression fraction (the amount of time on the chest during a rescue). More time on the chest is associated with higher survival rates. Rescuers should minimize the frequency and duration of interruptions (no more than 10 seconds) and maximize time on the chest (a target of 60%).
### Appendix B: First Aid Content Updates

#### Details of Changes

Appendix B contains the details of changes to first aid content. Affiliate Delivery Partners who offer and Instructor Trainers and Instructors teaching and evaluating Lifesaving First Aid (including CPR/CPR-HCP), National Lifeguard, and Bronze Medals are required to understand and implement these content changes.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Victim Positioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>Conscious victims should be placed in a position of comfort unless a spinal injury is suspected.</td>
</tr>
<tr>
<td></td>
<td>Reposition victim if required to access airway, breathing and circulation.</td>
</tr>
<tr>
<td></td>
<td>Victims with a suspected spinal injury should have head/neck manually immobilized in position found.</td>
</tr>
<tr>
<td></td>
<td>Victims with a suspected spinal injury may be repositioned if required to maintain airway, assess ABCs (airway, breathing and circulation) or provide</td>
</tr>
<tr>
<td></td>
<td>treatment for life threatening conditions.</td>
</tr>
<tr>
<td></td>
<td>Victims left alone while rescuer call EMS should be placed in the recovery position.</td>
</tr>
<tr>
<td>Change</td>
<td>No</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>N/A</td>
</tr>
<tr>
<td>Rationale</td>
<td>All victims should be left in the position found unless breathing cannot be assessed, if breathing cannot be assessed, then the victim should be rolled</td>
</tr>
<tr>
<td></td>
<td>onto their back.</td>
</tr>
<tr>
<td></td>
<td>Whenever a victim is being left unattended they should be placed in the recovery position (where a spinal injury is not suspected). This position is</td>
</tr>
<tr>
<td></td>
<td>designed to maintain an open airway and reduce the risk of airway obstruction and aspiration.</td>
</tr>
<tr>
<td></td>
<td>In the recovery position, the victim should be stable with the torso approaching true lateral (no pressure on the chest to impair breathing). The head can be</td>
</tr>
<tr>
<td></td>
<td>dependant or lying on the arm.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Concussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>Signs and symptoms of concussion are discussed and included in Canadian First Aid Manual</td>
</tr>
<tr>
<td>Change</td>
<td>Yes</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>Signs and symptoms updated to include: loss of consciousness (or change to level of consciousness), confusion, loss of memory, dizziness, headache,</td>
</tr>
<tr>
<td></td>
<td>vision problems, unsteadiness, and nausea.</td>
</tr>
<tr>
<td></td>
<td>All victims who sustain a head injury should be encouraged to discontinue activity (sport or other recreational activity) and seek medical aid.</td>
</tr>
<tr>
<td>Rationale</td>
<td>Due to complexity of the signs and symptoms (victims may suffer all, some of or none of these signs), rescuers may find the recognition of a concussion</td>
</tr>
<tr>
<td></td>
<td>difficult.</td>
</tr>
<tr>
<td></td>
<td>An absence of symptoms should not delay victims in receiving appropriate concussion management and post-concussion advice (discontinued activity and</td>
</tr>
<tr>
<td></td>
<td>seek medical aid).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Anaphylaxis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>Victims suffering from anaphylaxis should self administer, or be assisted by rescuer, an epinephrine auto-injector.</td>
</tr>
<tr>
<td></td>
<td>If a second dose is required it is recommended to seek medical advice (e.g. from EMS) before proceeding.</td>
</tr>
<tr>
<td>Change</td>
<td>Yes</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>A victim with symptoms of anaphylaxis, who has been treated with an epinephrine auto-injector may be given a second dose if the first dose is not</td>
</tr>
<tr>
<td></td>
<td>effective after 5 minutes.</td>
</tr>
<tr>
<td>Rationale</td>
<td>A person suffering from an anaphylactic reaction may require a second dose of epinephrine if the first dose is not effective in relieving symptoms.</td>
</tr>
</tbody>
</table>
### Non-Traumatic Chest Pain (Heart Attack/Angina)

**Current Practice**
If chest pain suspected to be from heart attack or angina (when prescribed medication is not available) rescuers may suggest the victim self-administer ASA (e.g. Aspirin).

Victims recommended to chew 1 adult or 2 children ASA tablet if not allergic, does not have asthma and has not been told by a doctor not to take ASA.

**Change**
Yes

**2016 Updates**
If chest pain suspected to be from heart attack or angina (when prescribed medication is not available) rescuers may recommend victims self-administer ASA (e.g. Aspirin).

Encourage the victim to chew 1 adult or 2 low dose ASA tablets unless the victim is allergic to ASA and/or has a recent gastro-intestinal bleed or has been directed by a doctor not to take ASA tablets.

**Rationale**
Research has confirmed that early administration of ASA is a safe and effective early treatment option for victims suffering from heart attack or without access to angina medication.

Early administration of ASA may reduce the severity of a cardiac incident when administered as part of early first aid treatment.

### Stroke Assessment

**Current Practice**
Recognition and care for victims suffering from a suspected Stroke or TIA based on signs and symptoms.

**Change**
Yes

**2016 Updates**
The use of a stroke assessment system such as F.A.S.T. (Face, Arms, Speech, Time) may be used to support rescuers in the recognition of a stroke.

**Rationale**
Because it is difficult to differentiate between a transient ischemic attack (TIA) and a stroke. If any of the above signs and symptoms are present (regardless of duration), treat as a stroke.

Early recognition through the use of a stroke-assessment system decreases the interval between the time of stroke onset, arrival at the hospital, and treatment. Earlier access to treatment (within 3 hours of symptom onset) is associated with better long-term outcomes for victims who have suffered a stroke.

### Diabetic Emergencies

**Current Practice**
If a diabetic emergency is suspected recommend that the victim use a test kit to check blood sugar levels. For conscious victims self-administer prescribed medication or sugar in a: sugary drink, chocolate bar, sugar cube or hard candy.

**Change**
Yes

**2016 Updates**
Having a victim test blood sugar level is still recommended (no change).

The preferred first aid treatment for a diabetic emergency is to administer glucose tablets. If glucose tablets are not available, dietary sugar should be administered in the following order of preference: hard candy (e.g. Mentos, Skittles or jelly beans), unsweetened orange juice.

If symptoms persist for longer than 10 minutes administration of glucose may be repeated.

**Rationale**
Research has shown that glucose tablets are the most effective form of sugar in the treatment of diabetic emergencies. Dietary sugar should be provided when glucose tablets are not available.
### Topic: Treatment of Severe Bleeding

**Current Practice**
Severe bleeding should be controlled by applying firm, direct pressure (when possible) to the wound.

**Change**
Yes

**2016 Updates**
The use of tourniquets has been added as a knowledge only item. Candidates are not required to demonstrate the use of a tourniquet during first aid training.

In cases where direct pressure fails to control life-threatening external limb bleeding (or for circumstances such as wound inaccessibility, multiple injuries, multiple people/disaster settings, or remote locations) the use of a tourniquet may be appropriate.

Tourniquets should be approximately 5 cm (2 inches) wide, placed as close to the wound as possible (at least 5 cm (2 inches) above the injury while avoiding joints) and applied directly to exposed skin to avoid slipping.

A tourniquet should only be tightened enough to control bleeding. Effectiveness should not be evaluated by the presence or absence of a distal pulse.

**Rationale**
When tourniquets are applied correctly the rate of complications is low and the chance of significant blood loss is greatly reduced.

Tourniquets thinner or wider than 2 cm (2 inches) decreases the effectiveness of the tourniquet and increases chances of injury related to tourniquet use.

Tourniquets should only be considered for use when traditional methods of controlling bleeding are ineffective or the victim is at risk of significant loss of blood.

Tourniquets should only be used by rescuers trained in their use.

### Topic: Open Chest Wounds

**Current Practice**
Open chest wounds are treated by placing a seal over the wound with an opening on one side. The seal will act as a valve allowing air to escape without allowing air to be sucked into the chest cavity.

**Change**
Yes

**2016 Updates**
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.

A rescuer can leave an open chest wound exposed to ambient air without a dressing if bleeding is minor. A non-occlusive dressing (e.g. dry gauze) be applied for active or severe bleeding, however, the dressing must be changed if it becomes saturated (can lead to partial or complete occlusion that can result in a tension pneumothorax).

**Rationale**
Use of an improperly applied occlusive (air-tight) dressing to treat an open pneumothorax can result in a fatal tension pneumothorax, therefore, the use of a three-sided occlusive dressing is no longer recommended.
### Topic: Dental Injuries

#### Current Practice
An avulsed (broken or missing) tooth should be held at the crown (not the root), brushed clean and placed in a container with milk, and transported with the victim.

Rescuers should not try and reinsert an avulsed tooth - no change.

#### Change

Yes

#### 2016 Updates

An avulsed tooth should not be cleaned and should be held at the crown, not the root. The avulsed tooth should be placed in milk (if available) or it may be reasonable to store an avulsed tooth in the injured person’s saliva (not in the mouth).

#### Rationale

Canadian consensus guidelines indicate an order of preference for storage and transportation of an avulsed tooth which includes: balanced salt solution, egg whites, coconut water, and whole milk.

The Society has chosen to indicate only milk and a victim’s saliva as possible storage mediums to present options that first aiders are most likely to have access to when required for first aid treatment.

### Topic: Fractures

#### Current Practice

Rescuers provide treatment for bone and joint injuries by having the victim rest the injured part, immobilizing the injured part in a comfortable position (do not try and move the injured part).

Apply ice for 10-15 minutes every hour (should have a barrier such as a cloth between the ice and skin).

Elevate the injury if it will not cause increased pain to the victim.

#### Change

Yes

#### 2016 Updates

Rescuers should immobilize bone and joint injuries in the position found (when possible) to minimize pain, reduce the chance of further injury, and prepare the victim for transport.

If an injured extremity is blue or extremely pale, activate EMS immediately.

When a victim will be transported by EMS a splint should not be applied.

Ice may be applied for periods up to 20 minutes at a time using a protective barrier between the ice and the skin as long as there is good distal circulation.

#### Rationale

Any movement of a bone or joint injury, including application of a splint, increases the chance of further injury and usually results in more pain for the victim.

To prevent cold injury to skin and superficial nerves the application of cold should be limited to periods of less than 20 minutes at a time with a protective barrier.

A blue or extremely pale extremity combined with a history suggesting a bone or joint injury, indicates that a fracture may be angulated. Angulated fractures require additional training to treat.
### Appendix B

#### Topic: Frostbite

**Current Practice:** Remove victim from cold environment.

**Change:** Yes

**2016 Updates:** Rescuers should only attempt re-warming frostbitten areas if there is no risk of the area refreezing. For severe frostbite, re-warming should be accomplished within 24 hours of the injury. After re-warming, protect frostbitten parts from re-freezing (dressed with sterile gauze and gauze placed between digits) and quickly transport to medical care.

**Rationale:** Evidence has shown that rapid re-warming of frostbitten areas with water baths between 37 and 42 Celsius (98.6-104 degrees Fahrenheit) for 20-30 minutes improved outcomes and reduced tissue loss. Chemical re-warmers should not be used.

### Topic: Minor Wound Care

**Current Practice:** Use of soap and water to clean wounds.

**Change:** Yes

**2016 Updates:** Use of clean running tap water to irrigate and clean wounds.

**Rationale:** Use of soap and water to clean wounds is no longer recommended as soap has been found to be toxic to the cells. Clean running tap water to irrigate and clean a wound is more effective than normal saline, thus reducing the risks of infection.

### Appendix C: Drowning and Water Rescue Content Updates

#### Details of Changes

Appendix C contains the details of changes to the definition of drowning and water rescue content. Affiliate Delivery Partners who offer and Instructor Trainers and Instructors teaching and evaluating Lifesaving First Aid (including CPR/CPR-HCP), National Lifeguard, and Bronze Medals are required to understand and implement these content changes.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Drowning Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>The Lifesaving Society introduced a definition of drowning in 2002.</td>
</tr>
<tr>
<td>Change</td>
<td>N/A</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Rationale:** The Lifesaving Society has adopted the internationally accepted definition of drowning to align with partners who support the Society in meeting its mission of Canada free from drowning and water related injury.

By having one consistent and concise definition of drowning members of the public are not exposed to different messaging that may be confusing or interpreted as conflicting information.

The Lifesaving Society would like to reinforce that the definition of drowning is: the process of experiencing respiratory impairment from submersion/immersion in liquid. Consistent use of this definition will support public education.
### Topic: Resuscitation for Drowning

<table>
<thead>
<tr>
<th>Current Practice</th>
<th>Change</th>
<th>2016 Updates</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-B-C approach</td>
<td>No</td>
<td>The concept of a team approach to resuscitation as discussed in the Health Care Provider section can be easily applied to a team of trained lifeguards.</td>
<td>Scientific evidence continues to support the traditional A-B-C approach to resuscitation for a drowning victim due to the hypoxic nature of the arrest. Rescuers should initiate resuscitation with 2 breaths followed by compressions.</td>
</tr>
</tbody>
</table>

### Topic: The Team Approach

<table>
<thead>
<tr>
<th>Current Practice</th>
<th>Change</th>
<th>2016 Updates</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>A team approach is emphasized in CPR-HCP.</td>
<td>Yes</td>
<td>The concept of a team approach to resuscitation as discussed in the Health Care Provider section can be easily applied to a team of trained lifeguards.</td>
<td>A team of trained National Lifeguards should use a choreographed approach to resuscitation where multiple assessments and/or treatments are performed simultaneously rather than in the sequential manner used by individual rescuers (e.g., one rescuer activates the emergency response system, a second begins CPR, and a third retrieves and sets up a defibrillator). National Lifeguard training should focus on building the team as each member arrives or delegating roles if multiple rescuers are present. This better reflects real life applications in most supervised aquatic settings.</td>
</tr>
</tbody>
</table>

### Topic: Aquatic Spinal Motion Restriction

<table>
<thead>
<tr>
<th>Current Practice</th>
<th>Change</th>
<th>2016 Updates</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victims with suspected spinal injuries should be immobilized and rolled (while immobilization is maintained), if required, and placed on a spine board for removal from the water. Assessment of airway, breathing and circulation should be completed as soon as possible. If victim is not breathing: victim quickly placed on spine board, rescue breaths may be given in water, victim removed from water and CPR initiated as soon as possible.</td>
<td>Yes</td>
<td>Although the 2015 scientific review did not result in any changes to the treatment protocols for lay rescuers (Emergency First Aid and Standard First Aid), The Lifesaving Society is providing clarification on how National Lifeguards and rescuers with Aquatic Emergency Care will treat a suspected spinal-injured victim in the water. If a suspected spinal-injured victim requires CPR, the rescuers will take a 'life over limb' approach and immediately remove the victim from the water (protecting the head from any unnecessary movement) and start resuscitation efforts. If a suspected spinal-injured victim is breathing, there will be no changes to the current protocols since traditional immobilization devices can still be used for extrication (removal of the victim from the water).</td>
<td>Research and evidence shows that the benefits to the victim from immediate removal and initiation of CPR and AED care (even when the risks from victim movement are considered) outweigh the benefit to the victim by maintaining immobilization during removal by placing the victim on a spine board.</td>
</tr>
</tbody>
</table>
The Lifesaving Society has created a Drowning Chain of Survival and accompanying position statement to align with the International Lifesaving Federation.

This Drowning Chain of Survival is a simple and clear tool to refine the call for prevention and action in Canada. It is a guide for policy making, resource allocation, and priority setting in drowning prevention.

**Rationale**

Drowning is a major global public health problem and effective prevention of drowning requires programs and policies that address known risk factors throughout Canada.

Drowning prevention through Water Smart® education and lifesaver/lifeguard training has always been a focus of the Lifesaving Society.

International and national cooperating organizations, including the Lifesaving Society, are contributing to the reduction of drowning worldwide by providing consistent messaging to communities world wide.

Canadian Lifesaving programs and National Lifeguard prepares candidates for service beyond the instructional setting to be able to make Water Smart® choices, educate/inform others on Water Smart® choices, recognize distress, safely complete rescues, and provide care following removal from water.

It is important for candidates in Lifesaving Society programs to understand the Drowning Chain of Survival and the role they play in implementing the Drowning Chain of Survival.

**Appendix C**

**Prevent Drowning**

It has been estimated that most deaths by drowning are preventable. The ability to avoid a drowning contrasts with the high rates of poor outcomes following these type of incidents. Drowning requires multiple layers of protection. To be effective, drowning prevention must be used by individuals near, on or around the water, and those who supervise or care for others in aquatic settings.

**Recommended Actions**

- Stay within arm’s reach of children when in or near the water.
- Swim where there are certified National Lifeguards.
- Fence pools, spas and other aquatic locations with 4-sided fencing.
- Always wear a lifejacket when using watercraft (e.g. boat, kayak etc.)
- Complete Swim to Survive skills.

**Recognize Distress – call for help**

The first challenge is to recognize a person in distress in the water and know how to act safely, and to activate the Lifeguard, rescue and emergency medical services (EMS) if possible and available. A person struggling and about to drown cannot usually call for help. Recognizable elements of a person at high risk of drowning include: near vertical body position, ineffective downward arm movements, ineffective pedalling or kicking leg action, and little or no forward progress in water.

Sending someone to call for help upon recognizing a person in distress is a key element in the drowning chain of survival. Delays in activating EMS/rescue services increases the risk of fatal drowning.

**Recommended Actions**

- Recognize early drowning person in distress signs. Persons may not wave or call for help.
- Tell someone to call for help while staying on-scene to provide assistance.
- Watch where the person is in the water, or ask a bystander to keep constant watch.

**Appendix C**
3. Provide Flotation – to prevent submersion

After recognizing a person is in distress and asking someone to call for help, the next priority is to interrupt the drowning process by providing flotation to the person. Providing flotation is a strategy to buy valuable time for emergency services to arrive, or for those at the scene to plan rescue efforts. Most rescuers tend to focus on the goal of getting the person out of the water even if there is a high threat to their own safety. Devices such as “ring buoys” are purpose-designed to provide flotation. However, they are not always available at the scene of a drowning incident. Therefore, improvised buoyancy aids such as empty plastic bottles/container, body boards, surfboards, driftwood, a car tire, or a basketball could be used. It is critical that rescuers take precautions not to become distressed themselves by engaging in inappropriate or dangerous behaviour. Give the number of bystanders who desire while attempting to rescue others, reaching out with, throwing or skipping the buoyancy aid without entering the water is the safest course of action.

Recommended Actions

- While helping others:
  - Stay out of the water to reduce risk.
  - Thrown something that floats to the person.
- To help yourself:
  - If you are in difficulty, don’t panic; stay with any flotation you may have.
  - Signal for help as soon as and if possible, and float.

4. Remove from Water – only if safe to do so

Removing the person from the water is essential in order to provide definitive end to the drowning process. Several strategies for removal can be used. Assist the person to get out of the water by giving directions, i.e. pointing out the closest and safest place to get out. Attempt to remove the person without fully entering the water by utilizing rescue techniques such as, reaching, throwing, and wading out with equipment. If all else fails, the rescuer may then consider entering the water if it is safe to do so. The entry of an untreated person into the water to rescue someone is extremely dangerous and is not recommended. In order to mitigate the risk during a rescue, a rescuer must bring a source of flotation to assist the person.

Recommended Actions

- Assist the person on how to self-rescue by giving them directions for getting out of the water.
- Try to remove the person without entering the water.
- Only if safe to do so, rescue the person using any flotation available.

5. Provide Care as Needed – seek medical attention

Basic life support for drowning persons is unique due to the dangerous environment which may pose some difficulties in providing care before, during or after the rescue process. The need for and initiation of basic life support may occur while the person is still in water if the rescuer is trained and can provide in-water resuscitation safely. If not interrupted, the drowning process leads to asphyxia followed by cardiac arrest within minutes. Any attempt to immobilize the spine will impede rescue, and more importantly delay resuscitation. Therefore, attempts to immobilize the spine should only be made where there is strong evidence of cervical spinal injury (transporting and positioning drowning persons may also require specialized adaptations).

Cardiopulmonary resuscitation (CPR) is needed when the heart stops following a period of asphyxia. Initial ventilations may be ineffective in drowning due to the presence of water in the upper airway. A chain of survival. Cardiopulmonary resuscitation is better in non-asphyxiated drowning due to the presence of water in the upper airway. Thus unique to drowning is that the most common rhythm in cardiac arrest following drowning is asystole; which an AED will not shock.

As soon as the person is removed from the water, rescuers must recognize the drowning severity especially if there is a high threat situation so immediate care can be provided. As the majority of people with mild distress may not actually aspirate water it is important to educate rescuers when to call the ambulance or seek medical assistance/hospital care.

Recommended Actions

- If not breathing, initiate CPR starting with two respirations.
- Consider the use of oxygen and an automated external defibrillator (AED) as soon as possible if trained and available.
- If breathing, stay with person until help arrives.
- Seek medical aid if any symptoms are present, and for all persons who require resuscitation.
### Appendix D

<table>
<thead>
<tr>
<th>Topic</th>
<th>The Team Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>A team approach is presented in the Canadian CPR-HCP Manual</td>
</tr>
<tr>
<td>Change</td>
<td>Yes</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>There is an increased emphasis of a team approach and system that should be implemented in health care settings which clearly present a choreographed approach to resuscitation where multiple assessments and/or treatments are performed simultaneously rather than in the sequential manner used by individual rescuers. (e.g., one rescuer activates the emergency response system while another begins chest compressions, a third either provides ventilation or retrieves the bag-mask device for rescue breaths, and a fourth retrieves and sets up a defibrillator)</td>
</tr>
<tr>
<td>Rationale</td>
<td>HCP training should focus on building the team as each member arrives or delegating roles if multiple rescuers are present. This better reflects real life applications in ambulance or hospital settings.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Simultaneous Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>Individual assessment or simultaneous assessment of breathing and circulation could be completed.</td>
</tr>
<tr>
<td>Change</td>
<td>Yes</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>A simultaneous assessment of breathing and pulse should be performed (for less than 10 seconds).</td>
</tr>
<tr>
<td>Rationale</td>
<td>The assessment steps for health care providers are essentially unchanged from the previous guidelines (a health care provider could assess breathing and pulse separately or simultaneously). Simultaneous assessment reduces the time to the first chest compression.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Ventilations and CPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>If a single rescuer is required to perform CPR, the mouth-to-mask technique for ventilations is preferred as it is simpler, faster, and results in shorter interruptions of chest compressions. In situations where there are a minimum of two rescuers present to support ventilations, the 2 person Bag-Valve-Mask technique is preferred over the 1 person Bag-Valve-Mask method. The 2 person Bag-Valve-Mask technique ensures a good airway, a proper seal of the mask, and helps to decrease the risk of gastric distension.</td>
</tr>
<tr>
<td>Change</td>
<td>No</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>N/A</td>
</tr>
<tr>
<td>Rationale</td>
<td>Current research supports the effectiveness of using a minimum of 2 rescuers to support ventilations while using a Bag-Valve-Mask.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Child and Infant CPR – Witness vs. Unwitnessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>No difference between treatment of a witness versus unwitnessed child/infant victim.</td>
</tr>
<tr>
<td>Change</td>
<td>Yes</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>In the event of an unwitnessed collapse, a lone rescuer will perform two minutes of CPR prior to activating EMS and obtaining an AED as per the previous guidelines. If available, a mobile phone should be used to call EMS immediately. In the event of a witnessed collapse, phone EMS &amp; Get the AED immediately as would be done with an adult victim.</td>
</tr>
<tr>
<td>Rationale</td>
<td>In a witnessed collapse there is a high probably that the child/infant is in ventricular fibrillation. Early access to an AED provides the greatest chance of survival.</td>
</tr>
</tbody>
</table>

### Instructor Tool

A CPR Protocol chart has been included on the next page as a tool for instructors. The only changes to CPR protocol are to reflect the 2016 updates to compression rate, compression depth for adult casualties, the note on minimizing interruptions, and updated protocol for calling EMS for a witnessed collapse of a child/infant casualty.
Scene Assessment
Check for Danger / What Happened?

Recognition
Unresponsive to verbal and painful stimuli (tap or pinch and shout)

EMS
Single Rescuer (activate EMS and retrieve AED if immediately available)
Single Rescuer Unwitnessed (2 minutes of care/activate EMS/retrieve an AED)

Activate EMS with cell phone or provide 2 min of CPR prior to activating EMS and obtaining AED

Assess Airway and Breathing
Perform a quick breathing (absent or abnormal) and pulse check for no more than 10 seconds

Treatment
Begin CPR if breathing is absent or abnormal
Begin CPR if no pulse is present or the pulse is less than 60 beats/min with poor perfusion

CPR Sequence
C-A-B (start with compressions) or ABC for drowning victims (breaths first)

Compression Rate
No less than 100/minute and no more than 120/minute (30 compressions in 15-18 seconds)

Compression Depth
5 – 6 cm (2.0 to 2.4 inches)
At least 1/3 the anterior-posterior diameter of the chest (5cm or 2 inches)

At least 1/3 the anterior-posterior diameter of the chest (4cm or 1.5 inches)

Compression Ratio
30:2
30:2 for 1 rescuer/15:2 for 2 rescuers

Compression Notes
• Allow the chest to fully recoil or release after each compression,
• Minimize the frequency and duration of interruptions (no more than 10 seconds) and maximize time on the chest
• When multiple rescuers are present, rotate compressors every 2 minutes
• Apply AED pads during CPR
• Immediately start CPR after a shock or a ‘no shock advised’ if no obvious signs of life present

Airway
• Head-tilt/chin-lift
• Initially perform a jaw thrust (suspected spinal injury), if air does not go in, reposition with a head-tilt/chin-lift

Breathing
• Provide 2 rescue breaths (observe chest rise and fall)
• Take regular rather than deep breaths to prevent gastric distention and/or over inflation of the lungs
• 1 rescue breath every 5 seconds (child/Infant every 3 seconds)

Defibrillation
Attach an AED as soon as it becomes available

Reassessment
• ABC reassessment every 2 minutes on a victim with a pulse
• Only reassess ABCs if victim shows signs of life

Appendix E: Oxygen Administration Content Updates
Summary of Changes
Appendix E contains the details of changes to oxygen administration content. Affiliate Delivery Partners who offer and Instructor Trainers and Instructors teaching and evaluating Oxygen Administration are required to understand and implement these content changes.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Use of Oxygen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>Oxygen may be given to victims in any first aid situation who are experiencing hypoxia or anoxia. Rescuers should be trained in the use of oxygen and any applicable legislation and regulations regarding use of oxygen by rescuers must be followed.</td>
</tr>
<tr>
<td>Change</td>
<td>Yes</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>Rescuer evaluation criteria for determining if providing a victim with supplemental oxygen have been updated. Updated criteria recommends supplemental oxygen for: drowning victims, decompression sickness, carbon monoxide poisoning, respiratory arrest, and for victims with a pulse oximetry reading of less than 94%. The Canadian First Aid Manual has been updated to include information on the use of pulse oximeters.</td>
</tr>
<tr>
<td>Rationale</td>
<td>Although oxygen has proven beneficial in the treatment of some hypoxic conditions, several studies indicate that it can be harmful in the treatment of a victim suffering from a myocardial infarction if their blood oxygen saturation is greater than 94%. A pulse oximeter is easy to use and can be easily incorporated into oxygen administration programs (follow the manufacturer’s directions on use).</td>
</tr>
</tbody>
</table>

Appendix E: Oxygen Administration Content Updates

Summary of Changes

Appendix E contains the details of changes to oxygen administration content. Affiliate Delivery Partners who offer and Instructor Trainers and Instructors teaching and evaluating Oxygen Administration are required to understand and implement these content changes.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Use of Oxygen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Practice</td>
<td>Oxygen may be given to victims in any first aid situation who are experiencing hypoxia or anoxia. Rescuers should be trained in the use of oxygen and any applicable legislation and regulations regarding use of oxygen by rescuers must be followed.</td>
</tr>
<tr>
<td>Change</td>
<td>Yes</td>
</tr>
<tr>
<td>2016 Updates</td>
<td>Rescuer evaluation criteria for determining if providing a victim with supplemental oxygen have been updated. Updated criteria recommends supplemental oxygen for: drowning victims, decompression sickness, carbon monoxide poisoning, respiratory arrest, and for victims with a pulse oximetry reading of less than 94%. The Canadian First Aid Manual has been updated to include information on the use of pulse oximeters.</td>
</tr>
<tr>
<td>Rationale</td>
<td>Although oxygen has proven beneficial in the treatment of some hypoxic conditions, several studies indicate that it can be harmful in the treatment of a victim suffering from a myocardial infarction if their blood oxygen saturation is greater than 94%. A pulse oximeter is easy to use and can be easily incorporated into oxygen administration programs (follow the manufacturer’s directions on use).</td>
</tr>
</tbody>
</table>
Appendix F: National Lifeguard and Bronze Medals Award Guide

Insert Pages

Appendix F contains the award guide insert pages for the National Lifeguard Award Guide and Bronze Medals Award Guide. Instructors and instructor trainers teaching National Lifeguard or Bronze Medals must either use these insert pages when teaching and evaluating following their completion of the Lifesaving Society First Aid and Resuscitation Content Mandatory Update or may choose to purchase an updated copy of the award guides from the Society.

What to do with Insert Pages?

Insert pages for National Lifeguard Award Guide and Bronze Medals Award Guide are for instructors who have chosen not to purchase an updated copy of these award guides. Instructors should print a copy of each of the award guide insert pages and staple them directly over the existing page in their award guide.

Instructors using insert pages in lieu of ordering updated award guides are responsible for making sure that future evaluation is based on the insert pages, not the content contained in the corresponding existing award guide pages.

NOTE: Insert pages follow the same naming and identification format as the original pages in the award guide. Page numbers at the bottom correspond to the page number to be replaced in the award guide.

The following table is a guide to the insert pages and which award guide they should be inserted in.

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Course and Item Number</th>
<th>Award Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management of spinal-injured victim</td>
<td>National Lifeguard - Pool - Item 9C</td>
<td>National Lifeguard Award Guide</td>
</tr>
<tr>
<td>Management of spinal-injured victim</td>
<td>National Lifeguard - Waterpark - Item 11C</td>
<td>National Lifeguard Award Guide</td>
</tr>
<tr>
<td>Management of spinal-injured victim</td>
<td>National Lifeguard - Waterfront - Item 10C</td>
<td>National Lifeguard Award Guide</td>
</tr>
<tr>
<td>Management of spinal-injured victim</td>
<td>National Lifeguard - Surf - Item 9C</td>
<td>National Lifeguard Award Guide</td>
</tr>
<tr>
<td>Resuscitation &amp; first aid evaluation criteria - Cardiopulmonary Resuscitation (CPR)</td>
<td>National Lifeguard - Appendix A</td>
<td>National Lifeguard Award Guide</td>
</tr>
<tr>
<td>Resuscitation &amp; first aid evaluation criteria - Airway obstruction</td>
<td>National Lifeguard - Appendix A</td>
<td>National Lifeguard Award Guide</td>
</tr>
<tr>
<td>Resuscitation &amp; first aid evaluation criteria - Shock; Heart attack or angina; External bleeding; Stroke/TIA</td>
<td>National Lifeguard - Appendix A</td>
<td>National Lifeguard Award Guide</td>
</tr>
<tr>
<td>Resuscitation &amp; first aid evaluation criteria - Diabetes; Poisoning</td>
<td>National Lifeguard - Appendix A</td>
<td>National Lifeguard Award Guide</td>
</tr>
<tr>
<td>Adult CPR</td>
<td>Bronze Star - First Aid - Item 10</td>
<td>Bronze Medals Award Guide</td>
</tr>
<tr>
<td>One-rescuer CPR: adult and child</td>
<td>Bronze Medallion - First Aid - Item 7</td>
<td>Bronze Medals Award Guide</td>
</tr>
<tr>
<td>Circulatory emergencies: heart attack or angina</td>
<td>Bronze Medallion - First Aid - Item 9b</td>
<td>Bronze Medals Award Guide</td>
</tr>
<tr>
<td>Circulatory emergencies: external bleeding</td>
<td>Bronze Medallion - First Aid - Item 9c</td>
<td>Bronze Medals Award Guide</td>
</tr>
<tr>
<td>One-rescuer CPR</td>
<td>Bronze Cross - First Aid - Item 5</td>
<td>Bronze Medals Award Guide</td>
</tr>
<tr>
<td>Obstructed airway: unconscious victim</td>
<td>Bronze Cross - First Aid - Item 7c</td>
<td>Bronze Medals Award Guide</td>
</tr>
</tbody>
</table>
Management of spinal-injured victim

**Purpose**
To ensure lifeguards have the necessary judgment, knowledge and skill to rescue a spinal-injured victim.

**Learning Outcome**
Candidate demonstrates effective individual skills in the transport and management of a breathing or non-breathing spinal-injured victim including adapting immobilization and transport techniques to respond to physical features and environmental conditions.

**Must See**
- **Deep water carry**
  - Quick recognition and immediate response
  - Appropriate entry and approach
  - Smooth roll-over if victim face down
  - Immobilization of spine during roll-over and throughout
- **Shallow-water or land spinal**
  - Quick recognition and immediate response
  - Appropriate entry and approach (in-water victim only)
  - Smooth roll-over if victim face down (in-water victim only)
  - Immobilization of spine during roll-over (if required) and throughout (in-water victim only)
  - EMS activated at earliest possible moment
  - Victim assessment (ABCs) and CPR if required
  - Victim re-assessment (ABCs) and ability to deal with complications and treatments as required
  - Secondary assessment
  - Effective use of barrier devices
  - Effective direction for back-up lifeguard and bystander
  - Stabilization on spineboard or other appropriate device (in-water only)
  - Preparation for transport and safe removal from water when possible

**References**:
- Alert Chapter 3 Aquatic Emergencies: Recognition and Intervention; Chapter 4 Lifeguarding Skills and Procedures: Management of spinal injuries
- CLM Chapter 5 Specialized Lifesaving SKILLS: Rescue procedures for spinal injuries

---

Management of spinal-injured victim

**Purpose**
To ensure lifeguards have the necessary judgment, knowledge and skill to rescue a spinal-injured victim.

**Learning Outcome**
Candidate demonstrates effective individual skills in the transport and management of a breathing or non-breathing spinal-injured victim located in a catch basin, wave pool, channel, stairs, or who has fallen from a height.

**Must See**
- Quick recognition and immediate response
- Appropriate entry and approach (in-water victim only)
- Smooth roll-over if victim is face down (in-water victim only)
- Immobilization of spine during roll-over (in-water victim only) and throughout
- Victim carried to safety maintaining immobilization and airway above surface (in-water victim only)
- Effective lifesaving kick with control of direction (in-water victim only)
- EMS activated at earliest possible moment
- Victim assessment (ABCs) and CPR if required
- Victim reassessment (ABCs) and ability to deal with complications and treatments as required
- Secondary assessment
- Effective use of barrier devices
- Effective direction for back-up lifeguard and bystander
- Stabilization on spineboard or other appropriate device (in-water victim only)
- Preparation for transport and safe removal from water when possible

**References**:
- Alert Chapter 3 Aquatic Emergencies: Recognition and Intervention; Chapter 4 Lifeguarding Skills and Procedures: Management of spinal injuries
- CLM Chapter 5 Specialized Lifesaving SKILLS: Rescue procedures for spinal injuries
Management of spinal-injured victim

Demonstrate effective management of a suspected spinal-injured victim with the assistance of back-up lifeguards and bystanders.

**Purpose**
To ensure lifeguards have the necessary judgment, knowledge and skill to rescue a spinal-injured victim.

**Learning Outcome**
Candidate demonstrates effective individual skills in the transport and management of a breathing or non-breathing spinal-injured victim including adapting immobilization and transport techniques in response to physical features and environmental conditions.

**Must See**
- Quick recognition and immediate response
- Appropriate entry and approach (in-water victim only)
- Smooth roll-over if victim is face down (in-water victim only)
- Immobilization of the spine during roll-over (in-water victim only) and throughout
- EMS activated at earliest possible moment
- Victim carried to safety while maintaining immobilization and support of airway above surface (in-water victim only)
- Effective lifesaving kick with control of direction (in-water victim only)
- Preparation for transport and safe removal from water when possible (in-water victim only)
- Victim assessment (ABCs) and CPR if required
- Victim re-assessment (ABCs) and ability to deal with complications and treatments as required
- Secondary assessment
- Effective use of barrier devices
- Effective direction for back-up lifeguards and bystanders
- Victim information collected for incident report

**Notes**
- Candidate demonstrates this item with the assistance of back-up lifeguards and bystanders. Evaluate only the candidate’s individual skill and ability not the team performance. Design scenarios to permit each candidate to demonstrate all “Must Sees”.
- Victims may be located in shallow water or on land.
- Eggbeater is the recommended kick for carrying a spinal-injured victim.
- Candidate should be prepared to respond to a breathing or non-breathing victim who may have an obstructed airway, who may vomit, or who may require CPR.
- For a non-breathing victim, immediately remove the victim from the water to initiate CPR. Stabilization on a spineboard is not required when CPR is indicated.
- For a spinal-injured victim, attempt a jaw thrust to open the airway; if unsuccessful, use head-tilt/chin-lift.
- Candidate should practice a variety of roll-over and immobilization techniques to adapt to the waterfront features and design.

**References**
- Alert Chapter 3 Aquatic Emergencies: Recognition and Intervention; Chapter 4 Lifeguarding Skills and Procedures: Management of spinal injuries
- CLM Chapter 5 Specialized Lifesaving Skills: Rescue procedures for spinal injuries

---

Management of spinal-injured victim

Demonstrate effective management of a suspected spinal-injured victim with the assistance of back-up lifeguards and bystanders.

**Purpose**
To ensure lifeguards have the necessary judgment, knowledge and skill to rescue a spinal-injured victim.

**Learning Outcome**
Candidate demonstrates effective individual skills in the transport and management of a breathing or non-breathing spinal-injured victim including adapting immobilization and transport techniques in response to physical features and environmental conditions.

**Must See**
- Quick recognition and immediate response
- Appropriate entry and approach (in-water victim only)
- Smooth roll-over if victim is face down (in-water victim only)
- Immobilization of the spine during roll-over (in-water victim only) and throughout
- EMS activated at earliest possible moment
- Victim carried to safety while maintaining immobilization and support of airway above surface (in-water victim only)
- Effective lifesaving kick with control of direction (in-water victim only)
- Preparation for transport and safe removal from water when possible (in-water victim only)
- Victim assessment (ABCs) and CPR if required
- Victim re-assessment (ABCs) and ability to deal with complications and treatments as required
- Secondary assessment
- Effective use of barrier devices
- Effective direction for back-up lifeguards and bystanders
- Victim information collected for incident report

**Notes**
- Candidate demonstrates this item with the assistance of back-up lifeguards and bystanders. Evaluate only the candidate’s individual skill and ability not the team performance. Design scenarios to permit each candidate to demonstrate all “Must Sees”.
- Victim may be located in shallow water or on land.
- Eggbeater is the recommended kick for carrying a spinal-injured victim.
- Candidate should be prepared to respond to a breathing or non-breathing victim who may have an obstructed airway, who may vomit, or who may require CPR.
- For a non-breathing victim, immediately remove the victim from the water to initiate CPR. Stabilization on a spineboard is not required when CPR is indicated.
- For a spinal-injured victim, attempt a jaw thrust to open the airway; if unsuccessful, use head-tilt/chin-lift.
- Candidate should practice a variety of roll-over and immobilization techniques to adapt to the surf environment features and design.

**References**
- Alert Chapter 3 Aquatic Emergencies: Recognition and Intervention; Chapter 4 Lifeguarding Skills and Procedures: Management of spinal injuries
- CLM Chapter 5 Specialized Lifesaving Skills: Rescue procedures for spinal injuries

---
Resuscitation & first aid evaluation criteria

Cardiopulmonary Resuscitation (CPR)

**Notes**
- Send bystander to phone EMS. If alone with an adult victim, call EMS right away. If alone with a child or infant, rescuer calls EMS after 2 minutes (5 cycles of 30:2) of CPR. Unconscious victims are left in the recovery position.
- Push Hard, Push Fast: compress the chest at a rate of 100-120 compressions per minute allowing for full chest recoil (30 compressions in 15-18 seconds). Compress at least 5 cm (2 inches) but no more than 6 cm (2.4 inches) for an adult, and up to but not more than 5 cm (2 inches) for a child. On an infant, compress at least 4 cm (1½ inches).
- Two-rescuer CPR: One rescuer performs CPR while the second calls EMS and returns with an AED and AED trained responder if available. Trained rescuers have two options: take turns doing one-rescuer CPR or one rescuer performs compressions while the other provides rescue breaths. To minimize fatigue, rescuers switch roles every 2 minutes (5 cycles of 30:2). Rescuers communicate and cooperate in decision-making and CPR performance.
- Rescuers should understand the importance of early defibrillation and how to use an AED (components, activation and pad application). Provincial regulations vary regarding the use of AEDs. Follow provincial requirements.
- AED pad placement: The upper-right chest pad should not go over the clavicle, clavicle or nipples. The lower-left pad should wrap around the rib cage - not on the abdomen or in the arm pit. On a child, if the pads are going to be less than 2 inches apart, place one on the center of the chest and the other on the back between the shoulder blades.
- The need for defibrillation on infants is uncommon, and the preferred treatment involves the use of a manual defibrillator by trained health care professionals. In an emergency, an AED could be used on an infant. If so, use pediatric pads if available. Otherwise, use adult pads.
- Use of barrier devices is recommended.

**References:**
CFL Chapters 6, 7, 8

**National Lifeguard Appendix A**

**One rescuer**
- Assessment of environment for hazards
- Establish unresponsiveness
- EMS activated at earliest possible moment
- Attempt to obtain AED and AED-trained responder
- Position victim on back, open airway and quick, visual check for breathing (5 sec.)
- If breathing, victim placed in recovery position
- If breathing is absent or abnormal, CPR started with 30 chest compressions (or with 2 rescue breaths for drowning victims)
- Immediate application of AED by an AED-trained responder (if available)
- CPR and/or AED use continued until EMS takes over treatment or the victim shows signs of life
- If victim shows signs of life, reassess ABCs and treat appropriately

**Two rescuer**
- Performs one-rescuer CPR
- Identifies self as CPR trained
- Sends EMS activation, presence of an AED and an AED-trained responder
- If an AED-trained responder is available, AED pads applied by one rescuer while other performs CPR
- CPR continued and roles switched with as little interruption as possible
- Procedure continued until EMS takes over or the victim shows signs of life
- If the victim shows signs of life, reassess ABCs and treat appropriately

If AED available
- AED applied, power on: expose chest-shove and dry if necessary
- Appropriate positioning of electrodes and connection to defibrillator
- Appropriate response to voice prompts and machine indicators
- Victim cleared for analysis ensuring no motion or contact with ethers. Visual check and “all clear” stated for analysis and shock
- AED prompts followed: sequence of analyze - shock/no shock - followed immediately by 2 min. of CPR) until EMS takes over treatment or victim shows signs of life (AED remains on until EMS takes over)

**Notes**
- Discuss common causes of airway obstruction.
- Back blows, abdominal thrusts or chest thrusts are effective for relieving severe airway obstruction in conscious adults and children. These techniques should be applied in rapid sequence until the obstruction is relieved or the victim becomes unconscious. More than one technique may be needed; there is insufficient evidence to determine which should be used first. However, some jurisdictions follow a standardized protocol. E.g., for Emergency or Standard First Aid certification in Ontario, 5 back blows alternate with 5 abdominal thrusts. In Quebec, abdominal or chest thrusts are used.
- Conscious victim
  - Conscious victim simulates either mild or severe airway obstruction. To signal the type of assistance needed, teach the universal choking signal.
  - Rescue assumes severe obstruction if victim reds “yes” when asked “Are you choking?” or if victim clutches neck or cannot speak or breathe.
- Unconscious victim
  - Whenever possible, use a manikin to practice chest compressions. If practicing this skill item on a person, rescuers simulate compressions to prevent injury.
  - Send bystander to phone EMS. If alone with an adult victim, call EMS right away. If alone with a child or infant, rescuer calls EMS after 2 minutes (5 cycles of 30:2) of CPR. Unconscious victims are left in the recovery position.
  - Push Hard, Push Fast: compress the chest at a rate of 100-120 compressions per minute allowing for full chest recoil (30 compressions in 15-18 seconds). Compress at least 5 cm (2 inches) but no more than 6 cm (2.4 inches) for an adult, and up to but not more than 5 cm (2 inches) for a child. On an infant, compress at least 4 cm (1½ inches).
  - The need for defibrillation on infants is uncommon, and the preferred treatment involves the use of a manual defibrillator by trained health care professionals. In an emergency, an AED could be used on an infant. If so, use pediatric pads if available. Otherwise, use adult pads.
  - Victim simulates complete airway obstruction.
  - Victim should also practice a sequence that begins with a conscious victim who becomes unconscious. Rescuer begins with ABC assessment of unconscious victim.
  - Use of barrier devices is recommended.

**References:**
CFL Chapters 6, 7, 8

Airway obstruction

**Notes**
- Consider unconscious cases of airway obstruction.
- Assess environment for hazards
- Assess degree of obstruction - absence, “Are you choking?”
- Life guarding friends self - “Can I help?”
- Selection of appropriate procedures: Mild obstruction
- Coughing encouraged
- Reassurance for victim

**Conscious adult or child**
- Assess environment for hazards
- Assess degree of obstruction
- Life guarding identifies self - “Can I help?”
- Selection of appropriate procedures: Mild obstruction
- Coughing encouraged
- Reassurance for victim

**Conscious infant**
- Assess environment for hazards
- Assess degree of obstruction
- Life guarding identifies self - “Can I help?”
- Selection of appropriate procedures: Mild obstruction
- Coughing encouraged
- Reassurance for victim

**Unconscious victim**
- Assess environment for hazards
- Establish unresponsiveness
- EMS activated
- Attempt to obtain AED and AED-trained responder if available
- Open airway and quick, visual check for breathing (5 sec.)
  - If breathing, victim placed in recovery position
  - If breathing is absent or abnormal, CPR started with 30 chest compressions (or with 2 rescue breaths for drowning victims)
- Immediate application of AED by an AED-trained responder (if available)
- CPR and/or AED use continued until EMS takes over treatment or the victim shows signs of life
- Unconscious victim
  - Whenever possible, use a manikin to practice chest compressions. If practicing this skill item on a person, rescuers simulate compressions to prevent injury.
  - Send bystander to phone EMS. If alone with an adult victim, call EMS right away. If alone with a child or infant, rescuer calls EMS after 2 minutes (5 cycles of 30:2) of CPR. Unconscious victims are left in the recovery position.
  - Push Hard, Push Fast: compress the chest at a rate of 100-120 compressions per minute allowing for full chest recoil (30 compressions in 15-18 seconds). Compress at least 5 cm (2 inches) but no more than 6 cm (2.4 inches) for an adult, and up to but not more than 5 cm (2 inches) for a child. On an infant, compress at least 4 cm (1½ inches).
  - The need for defibrillation on infants is uncommon, and the preferred treatment involves the use of a manual defibrillator by trained health care professionals. In an emergency, an AED could be used on an infant. If so, use pediatric pads if available. Otherwise, use adult pads.
  - Victim simulates complete airway obstruction.
  - Victim should also practice a sequence that begins with a unconscious victim who becomes conscious. Rescuer begins with ABC assessment of unconscious victim.
  - Use of barrier devices is recommended.

**References:**
CFL Chapters 6, 7, 8
Resuscitation & first aid evaluation criteria

Shock, Heart attack or angina; External Bleeding; Stroke/TIA

**Notes**

- Vital signs monitored include level of consciousness, breathing, pulse, pupils, skin colour and temperature.

**Heart attack or angina**

- Signs and symptoms of a heart attack may include:
  - Pain in chest, back, arm, neck, shoulder, and/or jaw.
  - Nausea, vomiting, and/or indigestion.
  - Shortness of breath.
  - Sweating, fatigue.
  - Apprehension, fear, denial.

- Any combination of these signs and symptoms makes the possibility of a heart attack more likely.

- A patient suffering chest pain may chew one adult strength or two low dose ASA. Victims must have their own ASA, no history of an aspirin allergy or asthma, and no signs of a recent or active gastrointestinal bleed.

- Monitoring vital signs refers to checking for any changes in breathing, pulse, level of consciousness and skin colour.

**External Bleeding**

- Candidate should provide own dressing and bandage. Sterile bandage may be simulated.

- Candidates are not required to demonstrate the use of a tourniquet but should be able to explain when a tourniquet may be used and how to use one.

**Stroke/TIA**

- Basic understanding of causes of stroke:
  - Head injury
  - Blood vessel blockage or burst
  - Arteries embolized caused by injection or scalp diving

- Candidates should understand the variety of signs and symptoms that might be expressed (e.g., paralysis, facial paralysis and sensory sensations).

- TIA (Transient Ischemic Attack): temporary stroke symptoms under 20 min. duration. Victims should be encouraged to seek medical attention. Many TIA victims eventually suffer a stroke.

- The use of a stroke assessment system such as F.A.S.T can assist candidates in identifying the signs and symptoms of a stroke.

**References:**

CLM Chapters 6, 7, 8

---

**National Lifeguard**

Appendix A

---

**Resuscitation & first aid evaluation criteria**

**Diabetes; Poisoning**

**Notes**

**Diabetes**

- Candidate is not required to distinguish between diabetic shock and coma.

- Candidates should be aware that the victim may have a test kit. Conscious victims should be encouraged to use the kit and take glucose if blood sugar is low.

- Glucose tablets are the preferred treatment for diabetic emergencies. If not available provide other dietary sugar such as hard candy (e.g., Mentos, Skittles, jellybean) or unsweetened orange juice.

- Never administer anything by mouth to an unconscious victim.

**Poisoning**

- Candidate should be aware of the various ways a poison may enter the body:
  - Inhaled (gases, drug abuse)
  - Absorbed (lead)
  - Injected (drug abuse, insect sting)

- Candidate should be aware that the victim may have undetected diabetes; Poisoning

- Candidate is not required to distinguish between diabetic shock and coma.

- EMS activated if victim is unconscious or if conscious victim does not improve

- Determination of cause of poisoning: identification and collection of sample (and container) of substance if feasible

- Avoidance of exposure to the poison

- Selected treatment appropriate for the injury

- Appropriate use of barrier devices

- Poison Control Centre or EMS contacted for treatment information

- Vital signs monitored

**References:**

CLM Chapters 6, 7, 8

---

**National Lifeguard**

Appendix A

---
Purpose
To restore breathing and circulation in an unconscious victim with absent or abnormal breathing.

Must See
- Assess environment for hazards
- Establish unresponsiveness
- Activate Emergency Medical Services (EMS)
- Attempt to obtain an AED and an AED-trained responder
- Position victim on back
- Open airway and quick, visual check for breathing (5 sec.)
  - If breathing, victim placed in recovery position
  - If breathing absent or abnormal, CPR started with 30 chest compressions (or with 2 rescue breaths for drowning victims)
- Immediate application of AED by AED-trained responder (if available)
- CPR and/or AED use continued until rescuer relieved of responsibility or victim shows signs of life
- If victim shows signs of life, reassess ABCs and treat appropriately

Notes
- Rescuer sends bystander to call EMS and find an AED and an AED-trained responder. If alone, rescuer phones EMS and returns with an AED and AED-trained responder if available any time prior to starting CPR.
- Rescuers should understand the importance of early defibrillation and how to use an AED (components, activation and pad application).
- AED pad placement: The upper-right chest pad should not go over the sternum, clavicle or nipple. The lower-left pad should wrap around the rib cage - not on the abdomen or in the arm pit.
- Push Hard, Push Fast: compress the chest at least 5 cm (2 in.) but no more than 6 cm (2.4 in.) at a rate of 100-120 compressions per minute allowing for full chest recoil (30 compressions in 15-18 seconds).
- Use of barrier device is recommended.

References:
- CLM Chapter 7.2 The ABC Priorities; 7.4 Rescue Breathing
- 7.5 Cardiopulmonary Resuscitation Appendix B

Demonstrate single-rescuer adult cardiopulmonary resuscitation (CPR) on a manikin.

Must See
- Send bystander to call EMS and find an AED and an AED-trained responder. If alone, rescuer calls EMS after 2 minutes (5 cycles of 30:2) of CPR. Unconscious victims are left in the recovery position.
- Rescuers should understand the importance of early defibrillation and how to use an AED (components, activation and pad application).
- Push Hard, Push Fast: compress the chest at a rate of 100-120 compressions per minute allowing for full chest recoil (30 compressions in 15-18 seconds). Compress at least 5 cm (2 in.) but no more than 6 cm (2.4 in.) for an adult, and up to but not more than 5 cm (2 in.) for a child.
- AED pad placement: The upper-right chest pad should not go over the sternum, clavicle or nipple. The lower-left pad should wrap around the rib cage - not on the abdomen or in the arm pit.
- On a child, if the pads are going to be less than 2 inches apart, place one on the center of the chest and the other on the back between the shoulder blades.
- Use of barrier device is recommended.

References:
- CLM Chapter 7.2 The ABC Priorities; 7.4 Rescue Breathing
- 7.5 Cardiopulmonary Resuscitation Appendix B

One-rescuer CPR: adult and child

Demonstrate single-rescuer adult and child cardiopulmonary resuscitation (CPR) on a manikin, including:
- Complications in resuscitation (vomiting/drowning)
- Adaptations (mouth-to-nose, stoma)

Must See
- Assess environment for hazards
- Establish unresponsiveness
- Activate Emergency Medical Services (EMS)
- Attempt to obtain an AED and an AED-trained responder
- Position victim on back
- Open airway and quick, visual check for breathing (5 sec.)
  - If breathing, victim placed in recovery position
  - If breathing absent or abnormal, CPR started with 30 chest compressions (or with 2 rescue breaths for drowning victims)
- Immediate application of AED by AED-trained responder (if available)
- CPR and/or AED use continued until rescuer relieved of responsibility or victim shows signs of life
- If victim shows signs of life, reassess ABCs and treat appropriately

Notes
- Send bystander to call EMS and find an AED and an AED-trained responder. If alone with an adult victim, call EMS right away. If alone with a child, rescuer calls EMS after 2 minutes (5 cycles of 30:2) of CPR. Unconscious victims are left in the recovery position.
- Rescuers should understand the importance of early defibrillation and how to use an AED (components, activation and pad application).
- Push Hard, Push Fast: compress the chest at a rate of 100-120 compressions per minute allowing for full chest recoil (30 compressions in 15-18 seconds). Compress at least 5 cm (2 in.) but no more than 6 cm (2.4 in.) for an adult, and up to but not more than 5 cm (2 in.) for a child.
- AED pad placement: The upper-right chest pad should not go over the sternum, clavicle or nipple. The lower-left pad should wrap around the rib cage - not on the abdomen or in the arm pit.
- On a child, if the pads are going to be less than 2 inches apart, place one on the center of the chest and the other on the back between the shoulder blades.
- Use of barrier device is recommended.

References:
- CLM Chapter 7.2 The ABC Priorities; 7.4 Rescue Breathing
- 7.5 Cardiopulmonary Resuscitation Appendix B

One-rescuer CPR: adult and child

Demonstrate single-rescuer adult and child cardiopulmonary resuscitation (CPR) on a manikin, including:
- Complications in resuscitation (vomiting/drowning)
- Adaptations (mouth-to-nose, stoma)
* Circulatory emergencies: heart attack or angina

Demonstrate the recognition and care of a victim suffering from a heart attack or angina.

<table>
<thead>
<tr>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>To provide care and treatment to support breathing and circulation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A victim suffering chest pain may chew one adult strength or two ‘low dose’ ASA. Victims must have their own ASA, no history of an aspirin allergy or asthma, and no signs of a recent or active gastrointestinal bleed.</td>
</tr>
<tr>
<td>Angina - 1 nitroglycerine tablet or other form such as spray not exceeding 3 doses in 10 min. Activate EMS if pain not relieved. Medical follow-up is recommended.</td>
</tr>
<tr>
<td>Candidates are not expected to do a complete secondary assessment.</td>
</tr>
<tr>
<td>Monitoring of ABCs refers to ensuring that breathing and circulation are present.</td>
</tr>
<tr>
<td>Instructors should avoid complicating the presentation and evaluation of this content.</td>
</tr>
<tr>
<td>Use of barrier devices is recommended.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Must See</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim and scene assessment</td>
</tr>
<tr>
<td>EMS activated</td>
</tr>
<tr>
<td>Rescuer has victim stop activity - sit or lay victim in position of greatest comfort</td>
</tr>
<tr>
<td>Victim reassured</td>
</tr>
<tr>
<td>ABCs monitored</td>
</tr>
<tr>
<td>Medical history requested (for example, cardiovascular disease)</td>
</tr>
<tr>
<td>Victim helped to take medication (nitroglycerine) if available - rescuer does not administer</td>
</tr>
</tbody>
</table>

References:
CLM Chapter 7.2 The ABC Priorities; 8.4 Circulatory Disorders

* Circulatory emergencies: external bleeding

Demonstrate recognition and care of a victim suffering from external bleeding.

<table>
<thead>
<tr>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>To provide care and treatment to support breathing and circulation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candidates should be prepared to provide their own dressing and bandage. Use of sterile dressing may be simulated.</td>
</tr>
<tr>
<td>May include embedded objects.</td>
</tr>
<tr>
<td>If available, rescuers should use barrier devices such as gloves and glasses to avoid exposure to blood and other body fluids.</td>
</tr>
<tr>
<td>Candidates are not expected to complete a secondary survey.</td>
</tr>
<tr>
<td>Monitoring of ABCs refers to ensuring that breathing and circulation are present.</td>
</tr>
<tr>
<td>Distal circulation check involves a check for circulation at a point distal to (away from) the injury. Have candidates perform a capillary refill test by squeezing a finger or toe and then watching for colour to return to the area.</td>
</tr>
<tr>
<td>Candidates are not required to demonstrate the use of a tourniquet but should be able to explain when a tourniquet would be used and how to use one.</td>
</tr>
<tr>
<td>Use of barrier devices is recommended.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Must See</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim and scene assessment</td>
</tr>
<tr>
<td>EMS activated if necessary</td>
</tr>
<tr>
<td>Direct pressure over wound or around wound if it contains an impaled object</td>
</tr>
<tr>
<td>Application of dressing and bandage</td>
</tr>
<tr>
<td>No aggravation of injury</td>
</tr>
<tr>
<td>Distal circulation check</td>
</tr>
<tr>
<td>Reassurance for victim and instruction to rest</td>
</tr>
<tr>
<td>ABCs monitored</td>
</tr>
</tbody>
</table>

References:
CLM Chapter 7.2 The ABC Priorities; 8.5 Bleeding
* One-rescuer CPR

Demonstrate single-rescuer adult and child cardiopulmonary resuscitation (CPR) on a manikin, including:

- Complications in resuscitation (vomiting/drowning)
- Adaptations (mouth-to-nose, stoma)

Purpose
To restore breathing and circulation in an unconscious victim with absent or abnormal breathing.

Must See

- Assess environment for hazards
- Establish unresponsiveness
- Activate Emergency Medical Services (EMS)
- Attempt to obtain an AED and an AED-trained responder
- Position victim on back
- Open airway and quick, visual check for breathing (5 sec.)
  - If breathing, victim placed in recovery position
  - If breathing is absent or abnormal, CPR started with 30 chest compressions (or with 2 rescue breaths for drowning victims)
- Immediate application of AED by an AED-trained responder (if available)
- CPR and/or AED use continued until EMS takes over treatment or the victim begins to show signs of life
- If victim shows signs of life, reassert ABCs and treat appropriately

Notes
- Send bystander to phone EMS. If alone with an adult victim, call EMS right away. If alone with a child or infant victim, rescue calls EMS after 2 minutes (5 cycles of 30:2) of CPR. Unconscious victims are left in the recovery position.
- Rescuers should understand the importance of early defibrillation and how to use an AED (components, activation and pad application).
- Push Hard, Push Fast: compress the chest at a rate of 100-120 compressions per minute allowing for full chest recoil (30 compressions in 15-18 seconds). Compress at least 5 cm (2 in.) but no more than 6 cm (2.4 in.) for an adult, and up to but not more than 5 cm (2 in.) for a child. On an infant, compress at least 4 cm (1½ in.).
- On a AED, if the pads are going to be less than 2 inches apart, place one on the centre of the chest and the other on the back between the shoulder blades.
- The need for defibrillation on infants is uncommon, and the preferred treatment involves the use of a manual defibrillator by trained health care professionals. In an emergency, an AED could be used on an infant. If so, use pediatric pads if available. Otherwise, use adult pads.
- Use of barrier device is recommended.

References:
CLM Chapter 7.2 The ABC Priorities; 7.4 Rescue Breathing; 7.5 Cardiopulmonary Resuscitation

* Obstructed airway: unconscious victim

Simulate the treatment of an unassisted unconscious adult, child, or infant with an obstructed airway.

Purpose
To clear airway obstruction and restore normal breathing to an unconscious victim.

Must See

- Assess the environment for hazards
- Establish unresponsiveness
- Activate Emergency Medical Services (EMS)
- Attempt to obtain an AED and an AED-trained responder if available
- Position victim on back
- Open airway and quick, visual check for breathing (5 sec.)
  - If breathing, victim placed in recovery position
  - If breathing is absent or abnormal, CPR started with 30 chest compressions (or with 2 rescue breaths for drowning victims)
- Immediate application of AED by an AED-trained responder (if available)
- CPR and/or AED use continued until EMS takes over treatment or the victim begins to show signs of life
- If victim shows signs of life, reassert ABCs and treat appropriately

Notes
- Whenever possible, use a manikin to practice chest compressions. If practicing this skill item on a person, rescuers simulate compressions to prevent injury.
- Send bystander to phone EMS. If alone with an adult victim, call EMS right away. If alone with a child or infant, rescue calls EMS after 2 minutes (5 cycles or 30:2) of CPR. Unconscious victims are left in the recovery position.
- Push Hard, Push Fast: compress the chest at a rate of 100-120 compressions per minute allowing for full chest recoil (30 compressions in 15-18 seconds). Compress at least 5 cm (2 in.) but no more than 6 cm (2.4 in.) for an adult, and up to but not more than 5 cm (2 in.) for a child. On an infant, compress at least 4 cm (1½ in.).
- The need for defibrillation on infants is uncommon, and the preferred treatment involves the use of a manual defibrillator by trained health care professionals. In an emergency, an AED could be used on an infant. If so, use pediatric pads if available. Otherwise, use adult pads.
- Use of barrier device is recommended.

References:
CLM Chapter 7.2 The ABC Priorities; 7.4 Rescue Breathing; 7.5 Cardiopulmonary Resuscitation
2016 MANDATORY UPDATE
INDIVIDUAL AGREEMENT AND ORDER FORM

Updated February 28, 2019

INFORMATION - Please print clearly

NAME: MEMBER #: 

ADDRESS: 

CITY: PROVINCE: POSTAL CODE: 

PHONE: ( ) ALT. PHONE: ( ) FAX: ( ) 

EMAIL: DOB: YY/MM/DD

CONDITIONS - Please read and complete

1. I have reviewed the information in the First Aid and Resuscitation 2016 Mandatory Update Guide. Download from www.lifesaving.org

Completed

2. I understand the roles and responsibilities that apply to my certification(s).

3. I have reviewed and understand the changes to first aid and resuscitation content.

4. I have reviewed and understand the changes to policies and procedures.

5. I have downloaded or ordered all required materials for my applicable certification.

6. My affiliate has ordered all required materials for my applicable certification.

7. I have read, understood and completed the conditions above.

SIGNATURE: _______________________________ DATE: ______________________________

Please submit completed form to the Lifesaving Society.
**RESOURCE ORDER FORM**

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Required or Optional</th>
<th>** Price</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership Reference Manual</td>
<td>Optional</td>
<td>$ 20.00</td>
<td></td>
</tr>
<tr>
<td>First Aid Instructor Trainer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Aid Instructor Lesson Plans *</td>
<td>Required</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>Lifesaving First Aid Award</td>
<td>Required</td>
<td>$ 8.00</td>
<td></td>
</tr>
<tr>
<td>Lifesaving First Aid Lesson Plans *</td>
<td>Required</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>Canadian First Aid Manual</td>
<td>Optional</td>
<td>$ 8.00</td>
<td></td>
</tr>
<tr>
<td>Canadian CPR-HCP Manual</td>
<td>Optional</td>
<td>$ 6.00</td>
<td></td>
</tr>
<tr>
<td>Canadian Oxygen Administration Manual</td>
<td>Optional</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>Lifesaving Instructor Trainer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swim and Lifesaving Instructor Award Guide *</td>
<td>Required</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>Swim and Lifesaving Instructor Recertification Award Guide *</td>
<td>Required</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>Lifesaving Instructor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bronze Medals Award Guide Item Inserts *</td>
<td>Required</td>
<td>$ 1.00</td>
<td></td>
</tr>
<tr>
<td>Bronze Medals Lesson Plans *</td>
<td>Required</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>Canadian CPR Manual</td>
<td>Required</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>Bronze Medals Award Guide</td>
<td>Optional</td>
<td>$ 10.00</td>
<td></td>
</tr>
<tr>
<td>Lifesaving CPR Award Guide</td>
<td>Optional</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>Lifesaving CPR and AED Lesson Plans *</td>
<td>Optional</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>Canadian Lifesaving Manual</td>
<td>Optional</td>
<td>$ 30.00</td>
<td></td>
</tr>
<tr>
<td>National Lifeguard Instructor Trainer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Lifeguard Instructor Award Guide *</td>
<td>Required</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>National Lifeguard Award Guide Item Inserts *</td>
<td>Required</td>
<td>$ 1.00</td>
<td></td>
</tr>
<tr>
<td>National Lifeguard Award Guide</td>
<td>Optional</td>
<td>$ 10.00</td>
<td></td>
</tr>
<tr>
<td>National Lifeguard Pool / Waterpark Lesson Plans *</td>
<td>Optional</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>National Lifeguard Waterfront/Surf Lesson Plans *</td>
<td>Optional</td>
<td>$ 2.00</td>
<td></td>
</tr>
<tr>
<td>Alert: Lifeguarding in Action</td>
<td>Optional</td>
<td>$ 30.00</td>
<td></td>
</tr>
</tbody>
</table>

* These items can be downloaded for free by using your member login at www.lifesaving.org.

Prices do not include GST or Shipping & Handling - these costs will appear on your official receipt.

** Prices in effect until April 30, 2017.

**PAYMENT INFORMATION**

- [ ] Debit / Cash (in person)
- [ ] Master Card
- [ ] Visa
- [ ] Invoice P/O #

**Credit Card #**  
**Expiry Date**  
**Name on Credit Card**  
**Phone number (associated with CC)**

---

Publications of the Lifesaving Society are available from any Branch office. Inquiries from outside Canada should be directed to the National Office.

- **Alberta and Northwest Territories Branch**  
  13122 – 156 Street  
  Edmonton, Alberta T5V 1V2  
  Telephone: (780) 415-1755  
  Fax: (780) 427-9334  
  E-mail: experts@lifesaving.org  
  Website: www.lifesaving.org

- **British Columbia & Yukon Branch**  
  112 - 3989 Henning Drive  
  Burnaby, British Columbia V5C 6N5  
  Telephone: (604) 299-5450  
  Fax: (604) 299-5795  
  E-mail: info@lifesaving.bc.ca  
  Website: www.lifesaving.bc.ca

- **Manitoba Branch**  
  #100 - 383 Provencher Boulevard  
  Winnipeg, Manitoba R2H 0G9  
  Telephone: (204) 956-2124  
  Fax: (204) 944-8546  
  E-mail: aquatics@lifesaving.mb.ca  
  Website: www.lifesaving.mb.ca

- **National Office**  
  1145 Hunt Club Road, Suite 001  
  Ottawa ON K1V 0Y3  
  Telephone: (613) 746-5694  
  Fax: (613) 746-9929  
  E-mail: experts@lifesaving.ca  
  Website: www.lifesaving.ca

- **New Brunswick Branch**  
  70 Melissa Street  
  Fredericton, New Brunswick E3A 6W1  
  Telephone: (506) 455-5762  
  Fax: (506) 450-7946  
  E-mail: info@lifesavingnb.ca  
  Website: www.lifesavingnb.ca

- **National Lifeguard Instructor**  
  National Lifeguard Instructor Award Guide * | Required | $ 2.00 |         |

- **Quebec Branch**  
  4545 Pierre de Coubertin Avenue  
  Montreal, Quebec H1V 0B2  
  Telephone: (514) 252-3100 or 1-800-265-3093  
  Fax: (514) 254-6232  
  E-mail: alerte@sauvetage.qc.ca  
  Website: www.sauvetage.qc.ca

- **Saskatchewan Branch**  
  2224 Smith Street  
  Regina, Saskatchewan S4P 2P4  
  Telephone: (306) 780-9255  
  Fax: (306) 780-9498  
  E-mail: lifesaving@sasktel.net  
  Website: www.lifesavingsociety.sk.ca

---

**Payment Information**

- [ ] Debit / Cash (in person)
- [ ] Master Card
- [ ] Visa
- [ ] Invoice P/O #

**Credit Card #**  
**Expiry Date**  
**Name on Credit Card**  
**Phone number (associated with CC)**

---

**FOR OFFICE USE ONLY**

**DATE PROCESSED**  
**PROCESSED BY**