

Legend



# Skills Summaries Blood Pressure Measurement—Palpation









Select correct size of cuff and place lower edge of cuff 2.5 cm (1 in.) above crease of elbow, centred over brachial artery.



2 Locate radial pulse.



Close regulating valve and inflate cuff 20 mmHg beyond point where radial pulse disappears.



- 4 Slowly deflate cuff until radial pulse returns, then deflate cuff fully.
- 5 Record approximate systolic blood pressure.

#### **Blood Pressure Measurement—Auscultation**







- of cuff and place lower edge of cuff 2.5 cm (1 in.) above crease of elbow, centred over brachial artery.
- 2 Locate radial pulse.







Close regulating valve and inflate cuff 20 mmHg beyond point where radial pulse disappears.



4 Position stethoscope over brachial artery.



5 Slowly deflate cuff until pulse is heard.



Record
systolic and
diastolic
blood
pressure.

## Conscious, Choking Adult or Child









1 Perform a scene survey.

2 Determine patient is choking and tell patient you are here to help.



Position self and support patient for back blows.



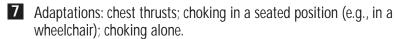
4 Give 5 firm back blows.



5 Position self for abdominal thrusts and give 5 abdominal thrusts.



6 Repeat cycle of back blows and abdominal thrusts until object is dislodged or patient begins to breathe or cough or becomes unconscious.













- 1 Perform a scene survey.
- 2 Determine baby is choking. Position self low to the ground and support baby's head and neck.



- 3 Turn baby face down (head lower than body).
- 4 Give 5 firm back blows.



- 5 Turn baby face up and give 5 chest thrusts.
- 6 Repeat cycle of back blows and chest thrusts until object is coughed up, baby starts to cry, breathe, or cough or becomes unconscious.

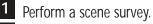


## Skills Summaries Unconscious, Choking Adult, Child, or Baby









2 Determine unresponsiveness.

3 Open Airway

Check Breathing and Circulation for a maximum of 5 to 10 seconds



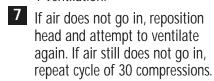








Open patient's airway and give 1 ventilation.







Look in mouth for an object (using a tongue-jaw lift); remove object if seen.





9 Attempt to ventilate.

If air does not go in, continue CPR sequence of 30 compressions and 2 ventilations. If first ventilation is successful, give another ventilation.

11 Check pulse. If there is no pulse, follow CPR sequence.

12 If there is a pulse, follow rescue breathing sequence.

13 If there is any change in patient's condition, stop CPR and check ABCs.

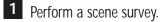


## Rescue Breathing for an Adult, Child, or Baby









Determine unresponsiveness, then open Airway.



Check Breathing and Circulation (carotid pulse for adult and child; brachial pulse for baby) for a maximum of 5 to 10 seconds.







4 If using a BVM, give two 1-second ventilations.

- 5 Give ventilations (1 every 5–6 seconds for adult; 1 every 3–5 seconds for child or baby).
- 6 Stop ventilations and check ABCs every 2 minutes or if there is any change in patient's condition.



# Suctioning









Measure distance of insertion (earlobe to corner of mouth).



With one hand, open mouth using crossed-finger technique and insert suction tip into mouth; never lose sight of tip and hold your breath while suctioning.







While withdrawing tip, suction until airway is clear or you can no longer hold your breath.



4 Immediately apply supplemental oxygen after suctioning.



## Insertion of an Oropharyngeal Airway, Adult or Child







Determine unresponsiveness, then measure distance of insertion (earlobe to corner of mouth).



2 Select correct size of airway.



Open mouth using crossedfinger technique or tongue-jaw









Insert airway halfway, with curved end facing roof of mouth; then rotate airway 180° into position.

## Insertion of an Oropharyngeal Airway, Baby





Determine unresponsiveness, then measure distance of insertion (earlobe to corner of mouth).



2 Select correct size of airway. Place padding under baby's shoulders.



Open baby's mouth. Using a tongue depressor to assist with insertion, insert airway with curved end facing down, following natural curvature of baby's airway.

# Insertion of a Nasopharyngeal Airway







- Determine appropriate use for NPA (i.e., recognizing contraindications).
- Measure distance of insertion (tip of nose to earlobe), ensuring diameter of airway is not larger than nostril.







Insert airway into right nostril with bevel toward septum.



Advance airway straight in, not upward, until flange rests on nose; if there is any resistance, insert into left nostril.



# Oxygen Set-up and Delivery









- 1 Check cylinder to ensure it is marked "oxygen." Ensure oxygen cylinder is stable at all times.
- 2 Clear valve:
  - a. Remove protective covering and set aside
  - b. Open cylinder for 1 second to clear valve, ensuring valve is facing away from everyone.

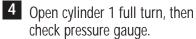






- 3 Attach pressure regulator:
  - a. Confirm regulator is designed to be used with an oxygen cylinder.
  - b. Put O-ring into pressure regulator.
  - c. Place pressure regulator on cylinder.
  - d. Set metal prongs into valve.
  - e. Hand-tighten screw until pressure regulator is snug.







5 Attach delivery device.



6 Adjust flowmeter to desired flow rate.



7 Verify oxygen flow and fill reservoir of non-rebreather mask, if using.



8 Safely apply device on patient.



# Using a Bag-Valve-Mask (BVM) Resuscitator for Ventilations











Select and insert correct size of OPA, if applicable.



2 Responder 1: assemble correct size of BVM.



Responder 1: attach BVM (adult, child, or baby) to supplemental oxygen.



- Responder 1: position mask, then open airway and seal mask:
  - a. Place thumbs on each side of mask.
  - b. Place fingers of both hands along jawbone.
  - c. Open airway using head-tilt/chin-lift (or jaw thrust if head and/or spine injury is suspected); for a baby, place padding under shoulders prior to opening airway.
  - d. Apply downward pressure with thumbs while lifting jaw upward with fingers.



- 5 Responder 2: begin ventilations:
  - a. Squeeze bag smoothly just until chest starts to rise.
  - b. Give 1 ventilation every 5–6 seconds (1 every 3–5 seconds for a child or baby).
  - c. Watch chest to see if air is going in.
  - d. Recheck pulse and breathing after 2 minutes and every few minutes thereafter.

#### CPR for an Adult or Child









Perform a scene survey.Determine unresponsiveness.



3 Open Airway.



CANADIAN RED CROS

4 Check Breathing and Circulation for a maximum of 5 to 10 seconds.



Place hands in appropriate position and give 30 compressions (at a rate of at least 100/minute).



6 Give 2 ventilations with barrier device and supplemental oxygen.

- Repeat cycle of 30 compressions and 2 ventilations. Continue CPR until AED can be applied, more advanced care takes over, or local protocol dictates otherwise.
- 8 If there is any change in patient's condition, stop CPR and check ABCs.

# CPR for a Baby







- Perform a scene survey.Determine unresponsiveness, then open Airway.



3 Check Breathing and Circulation for a maximum of 5 to 10 seconds.



Place fingers in appropriate position and give 30 compressions (at a rate of at least 100/minute).



- Place padding under shoulders to open airway. Give 2 ventilations with barrier device and supplemental oxygen.
- Repeat cycle of 30 compressions and 2 ventilations. Continue CPR until AED can be applied, more advanced care takes over, or local protocol dictates otherwise.
- If there is any change in baby's condition, stop CPR and check ABCs.



## Using an Automated External Defibrillator (AED)











1 Ensure chest is ready for electrode pad placement.



2 Apply correct size of electrode pads based on patient's age.



- 3 Turn on AED and follow voice prompts.
- 4 Stop CPR and ensure everybody is clear of patient before delivering shock.



- 5 Apply shock (if indicated), operating AED properly.
- 6 Resume CPR at appropriate time.

Respond appropriately when confronted with simulated problems or hazards. If there is any change in patient's condition, stop CPR and check ABCs.

#### Two-Rescuer CPR













2 Determine unresponsiveness.

Responder 1: open Airway and check Breathing and Circulation for a maximum of 5 to 10 seconds.



Responder 1: place hands in appropriate position for chest compressions. Responder 2: prepare AED and barrier device/BVM with supplemental oxygen.



Responder 1: give 30 compressions (at a rate of at least 100/minute).





- 6 Responder 2: maintain airway, then position and seal mask. Responder 1: give 2 ventilations (each lasting 1 second) until chest starts to rise.
- Repeat cycle of compressions and ventilations (at a rate of 30/2 for an adult or 15/2 for a child or baby). Responder at head periodically checks for effectiveness of compressions by feeling for carotid pulse.
- Responders switch roles between cycles. Continue CPR until AED can be applied, more advanced care takes over, or local protocol dictates otherwise.
- 9 Follow AED's prompts and prepare for transport.
- If there is any change in patient's condition, stop CPR and check ABCs.



## Controlling External Bleeding







Expose, examine, and apply direct pressure to wound, or appropriately control bleeding if object is impaled.



2 Apply pressure bandage if bleeding continues.



If bleeding continues, assess distal circulation, then apply tourniquet 5 to 10 cm (2 to 4 in.) above injury.





- 4 Bandage wound securely.
- Reassess distal circulation; after 10 minutes, slowly remove tourniquet if there has been a significant reduction in bleeding.
- 6 Maintain aseptic technique throughout procedure.
- Document application of tourniquet, including the times it was applied, tightened, and released.

## Splinting









1 Expose and examine injury.
Perform manual stabilization and control any bleeding.



Assess distal pulse and motor and sensory function.







Measure splint appropriately, then apply splint to immobilize limb above and below injury.







Pad splint as necessary, then secure splint in place.







- Reassess circulation and motor and sensory function.
- 6 Elevate splinted part, if possible.



## **Traction Splint**











- 1 Determine need for traction splint, and ensure it is not used for a joint injury (confirmed or suspected).
- 2 Assess distal pulse and motor and sensory function.

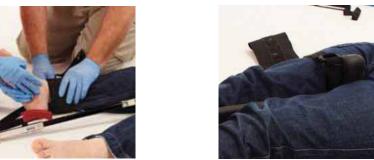


Perform manual stabilization (if there is at least 1 other responder available).





Position splint and secure upper thigh and ankle straps appropriately.



**5** Position tensor straps.



Apply traction with splint according to local protocol and manufacturer's recommendations.



7 Secure tensor straps appropriately.



8 Reassess distal pulse and motor and sensory function.

9 Immobilize both legs together.



## Application of a Cervical Collar









Determine need for immobilization. Instruct patient not to move and to inform you if there is any pain and/or resistance.



2 Control movement of cervical spine by delegating manual in-line stabilization throughout procedure.







Move head into neutral alignment (if needed and not contraindicated).





4 Measure patient accurately and select correct size of cervical collar.





5 Apply and secure collar with minimal movement to head and spine. Continue to manually stabilize head and neck.



## Securing a Patient on a Backboard













- 1 Determine need for immobilization.
- Apply cervical collar and maintain in-line stabilization.
- Place hands in appropriate position, then roll patient onto backboard as one unit.







Position patient in centre of backboard. Secure body to backboard using appropriate strapping devices in correct sequence (chest, hips, feet).



- Pad any natural hollows, then secure patient's head to backboard using appropriate equipment.
- If necessary, reapply/adjust cervical collar. Secure arms and hands in front of body and confirm patient is secure before moving.



#### Helmet Removal













Responder 1: maintain manual stabilization throughout.







Responder 2: remove any face piece that interferes with normal breathing, maintaining an open airway, or performing rescue breathing.







Responder 2: remove chin strap or any other securing devices (e.g., padding).



4 Responder 2: support head.





Responder 1: slide helmet off.



Responder 1: continue to maintain manual stabilization until immobilization is complete.



## Shoulder Pad Removal















1 Cut away clothing.



Release or cut any straps that interfere with pad removal.



3 Support patient's chest and upper arms.



4 Slowly remove padding.5 Pad any natural hollows under patient's head.



## Application of an Upper Body Motion Restriction Device











- 1 Determine need for immobilization.
- Delegate manual in-line stabilization of head and neck until other equipment is applied.
- Apply and secure cervical collar with minimal movement to head and spine.



4 Position device according to manufacturer's recommendations.



- Confirm device positioning, then secure straps in proper order, starting with middle and lower torso straps.
- 6 Secure leg straps.



7 Pad head appropriately.



8 Secure head to device.



9 Secure upper torso strap.



Safely move patient to a backboard as a team.





- Release leg straps and slowly lower patient's legs to an in-line position.
- 12 Secure patient to backboard.



## Glucometric Testing





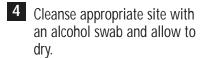






- Ensure history of patient is taken and determine need for glucometric testing.
- 2 Gather required equipment and prepare lancet and lancet device.
- Insert test strip into glucometer and match code number on screen to that of test strip vial.







5 Puncture skin with lancet using aseptic technique.



6 Drop blood onto test strip.





7 Dispose of sharps safely.8 Obtain an accurate blood glucose level reading.



9 Bandage wound.

## Loading Patients into an Ambulance





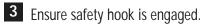






- 1 Establish a plan with other responder(s) and work as a team.
- 2 Use proper body mechanics to safely lift and move patient.







4 Lift carriage.

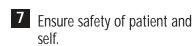


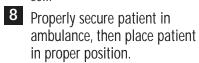




6 Engage locking pin.









## Operating a Stretcher



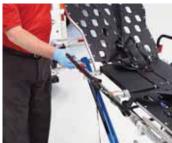






- Establish a plan with other responder(s) and work as a team.
- 2 Safely remove stretcher from ambulance.
- 3 Adjust height of stretcher.
- 4 Use proper body mechanics to safely lift and move patient onto a stretcher.





- Secure patient to stretcher using appropriate straps.
- Use various controls to safely move patient's head up or down, elevate legs, or adjust length of stretcher.





- Move patient and stretcher into ambulance.
- Remove patient from ambulance without endangering self, patient, or other responder(s).

#### Vehicle Circle Check

















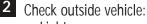


- · Engine oil/leaks
- Coolant levels/leaks
- Power-steering fluid
- Drive belts
- · Windshield-washer fluid
- Battery clean/secure
- Leaks, hoses









- Lights
- Mud flaps
- Body damage/rust perforation
- Fluid leaks under vehicle
- Wheels, hubs, lugs, nuts
- Tire condition/pressure (psi)
- · Suspension, springs, shocks
- Exhaust system
- Licence plate—clean/ valid sticker
- Exterior vehicle clean

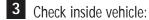












- Steering—excessive play/looseness
- Brake booster operation
- Brake pedal reserve and fade
- All gauges
- Fuel level
- Windshield wipers and washers
- Clean windows and mirrors
- Heater and defroster



- Seat belt operation
- Parking brake operation
- Clean inside cab/no damage
- · Mirror adjustment and condition
- · Patient compartment clean and sanitary









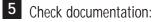








- Emergency warning lights
- Side floodlights
- Rear floodlight
- Interior lights
- Siren and PA system
- Backup alarm
- **Flares**
- Fire extinguisher
- Radio
- Ensure there are 2 helmets, 2 traffic safety vests, and 2 level-C haz-mat suits



- Ownership
- Insurance
- Collision report booklet
- · Annual inspection sticker and/or certificate
- 6 Report any concerns found during the vehicle check.
- Check is done as per legislation for a commercial driver's licence.



## IV Maintenance—Preparing an IV Line







Inspect solution and packaging prior to assembly of drip set.



2 Confirm and assemble appropriate drip set and lock off the line.



Hold solution bag inverted and remove protective cap on port using aseptic technique.



4 Support inverted solution bag, and insert spiked end of IV drip chamber into port with a straight push.



- Place solution bag in proper vertical position, fill drip chamber  $\frac{1}{2}$  to  $\frac{2}{3}$  full, release line lock, and purge air from line.
- 6 Confirm solution is flowing and lock off the line.



# IV Maintenance—Replacing a Solution Bag





- To replace a solution bag, prepare a new bag (as above), then lock off the line.
- Invert solution bag and remove protective cap on port, then insert spiked end of IV drip chamber into port; unlock line and confirm proper flow rate.





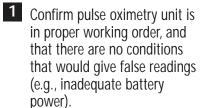
Document time IV bag was changed, amount and type of solution hung, and any amount discarded.

## **Pulse Oximetry**











2 Apply pulse oximeter probe to finger presenting with sufficient perfusion.





- Administer oxygen as required.Confirm palpated pulse rate is same as reading on oximeter.
- 5 Confirm assessment findings with patient.



# Entonox® Set-up and Delivery

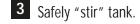






- 1 Ensure a safe environment for administration.
- 2 Attach regulator to tank.













Pass demand valve with mask to patient, and confirm patient self-administers correctly.



6 Deliver supplemental low-flow oxygen between Entonox® administrations.

- Monitor patient's condition; stop protocol if patient's condition is negatively impacted.
- 8 Upon discontinuation of administration, turn off tank and exhaust-demand valve with appropriate tool.
- 9 Prepare Entonox<sup>®</sup> unit for subsequent usage (including storage).



## **Skills Summaries** Standing Take-Down











- Responder 1: maintain manual in-line stabilization. Responder 2: apply cervical collar.
- Responders stand on either side of patient. Responder 1: slide backboard behind patient, ensuring that it is aligned properly (centred). Responder 2 (and a third responder if available): brace bottom of backboard with one foot.



While holding patient's head steady with one hand, responders place free hand under patient's armpits and grasp next highest handhold on backboard.





4 Safely lower patient to the ground, maintaining manual in-line stabilization and using proper body mechanics.







- Ensure patient is appropriately held in place (e.g., elbows tucked).
- 6 If there is a third responder, Responder 3: maintain manual in-line stabilization from behind backboard.
- **7** Secure patient to backboard.

## Scene and Primary Survey





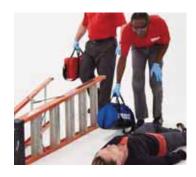












- Identify and reduce any potential environmental risks or hazards.
- 2 Identify mechanism of injury/chief complaint.
- Identify number of patients.
  Identify and request other
  needed resources and introduce
  self.



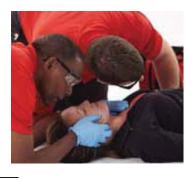
Determine responsiveness and level of consciousness (AVPU: Alert, Verbal, Painful, Unresponsive).



Determine if manual spinal precautions should be taken, and act appropriately.



6 Open Airway.



7 Check Breathing.











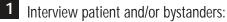


8 Check Circulation, including deadly bleeding.

## Secondary Survey







- Confirm chief complaint and mechanism of injury as determined by primary survey.
- Collect patient history (SAMPLE: Signs and symptoms, Allergies, Medications, Past medical history, Last meal, Events prior to incident).













- 2 Check and record vital signs:
  - Level of consciousness (use Glasgow Coma Scale)
  - Breathing (rate, rhythm, and quality)
  - Pulse (rate, rhythm, and quality)
  - Skin characteristics (colour, condition, and temperature)
  - Blood pressure (rate)
  - · Pupils (size, pupils of equal size, and reactive to light)

## Glasgow Coma Scale (GCS)

Eye Opening (E) Spontaneous-4 To voice-3 To pain-2 No response-1

Best Verbal Response (V) Oriented and converses-5 Disoriented and converses-4 Inappropriate words-3 Incomprehensible sounds-2 No response-1

E + V + M = 3 to 15

#### Best Motor Response (M)

To verbal command: Obeys command-6 To painful stimulus: Localizes pain-5 Withdrawal-4 Abnormal flexion-3 Abnormal extension-2 No response-1























- Get consent from patient before touching her.
- Carefully and systematically examine (exposing when needed) and palpate:
  - Head and neck
  - Shoulders and collarbones
  - Chest
  - Back
  - Abdomen
  - Pelvis and hips
  - Legs and arms

## Administering Glucose Gel











1 Place unconscious patient in semi-prone position and conscious patient in a comfortable position.







2 Measure approximately 12 grams of glucose gel (can be on end of tongue depressor).







- Remove oxygen mask and OPA (if using). Spread glucose gel on inside of lower cheek (buccal area).
- Replace oxygen mask and OPA (if using). Promote absorption of glucose product by massaging outer lower cheek.



Document time, route (oral) and dose administered, and result on Patient Care Report.

## Rolling a Patient onto a Backboard: From a Supine Position

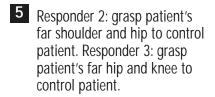




- Establish a plan with other responders and work as a team.
- Apply cervical collar, when appropriate.
- Responder 1: maintain manual in-line stabilization of patient's head and neck throughout procedure.
- 4 Responders 2 and 3: place backboard beside patient and kneel on other side of patient.









6 Responder 1: give a prearranged command to roll patient. Responders roll patient as one unit onto patient's side.



**7** Responder 2: examine patient's back while keeping one hand on patient's shoulder and supporting patient against thighs.







- Responders 2 and 3: position backboard against patient.
- **9** Responder 1: give pre-arranged command to roll patient as one unit onto backboard.
- 10 Responders roll patient as one unit onto backboard. Secure patient in centre of backboard.



# Rolling a Patient onto a Backboard: From a Prone Position

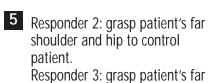




- 1 Establish a plan with other responders and work as a team.
- Responder 1: maintain manual in-line stabilization of patient's head and neck throughout procedure.
- Responder 2: examine patient's back.
  - Responders 2 and 3: kneel beside patient and place backboard between patient and themselves.







hip and knee to control patient.

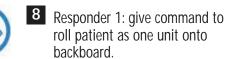


Responder 1: give a prearranged command to roll patient. Responders roll patient as one unit onto patient's side.



Responder 3: position backboard against patient.







- Responders roll patient as one unit onto backboard. If possible, apply cervical collar.
- Secure patient in centre of backboard.

# Rolling a Patient onto a Backboard: From a Semi-Prone Position





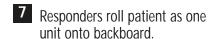
- 1 Establish a plan with other responders and work as a team.
- Responder 1: maintain manual in-line stabilization of patient's head and neck throughout procedure, being careful not to roll patient onto her face.



- 3 Examine patient's back.
- Responders 2 and 3: kneel beside patient and place backboard behind patient.
- Responder 2: grasp patient's top shoulder and hip to control patient. Responder 3: grasp patient's top hip and knee to control patient.
- Responder 1: give pre-arranged command to roll patient as one unit onto backboard.









8 Apply cervical collar.



9 Secure patient in centre of backboard.