# INTERNATIONAL LIFEGUARD TRAINING PROGRAM™

## BASIC FIRST RESPONDER CARE SUMMARY MATRIX

**FIRST RESPONDER** (FIRST AID) CARE begins with the primary check to confirm that CIRCULATION, AIRWAY, AND BREATHING ("CABs") are present and maintained. All other conditions found will be considered secondary in treatment priority to Basic Life Support (BLS) care. Even after the Primary check, it is vital for CABs to be monitored and maintained while providing secondary first aid care. Contact EMS for any condition requiring more care than the basic scope of care included in this training, in accordance with your facility Emergency Action Plan (EAP). For condition background, signs, symptoms, and care details, please review chapter 13 in the ILTP™ Course textbook. **Effective 2011: treatment for shock no longer includes elevation of the legs; treatment for bleeding no longer includes elevation of the bleeding body part or applying pressure to the pressure points. First Aid training in the ILTP™ now includes additional procedures for eye and mouth injuries.**

### PRIORITY OF CARE

**SCENE SAFETY**
Is the area safe to enter?
What may have been the cause/mechanism of injury/illness and what danger still exists?

**PRIMARY CHECK**
Assessment and Basic Life Support (BLS) care of Circulation, Airway, Breathing
CALL EMS if necessary or if unsure

**SECONDARY CHECK**
Assessment of conditions not immediately life threatening but may require first aid care
CALL EMS for any condition that may require further care or if unsure

Take proper Body Substance Isolation precautions before administering care

### PERFOMING THE SECONDARY CHECK

| | |
|---|---|
| Signs of Injury/Illness | •Any condition the rescuer can see, feel, or smell |
| Symptoms of Injury/Illness | •Any condition the guest feels and is able to describe |
| Physical Exam | •Head to toe exam, referencing DOTS: Deformity, Open wounds, Tenderness/pain, Swelling/discoloration |
| Gather Information | •Communicate with the guest/bystanders to determine details, including cause and information about the guest, such as medical history, medications, etc. |
| Care/Monitor/Transfer | •Provide the appropriate care for signs and symptoms found while continuing to monitor and maintain Circulation, Airway, and Breathing. Transfer care and information when EMS arrives |

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## MEDICAL EMERGENCIES – SIGNS/SYMPTOMS AND BASIC CARE SUMMARY

### Heart Attack

**Signs/Symptoms**
- Chest Pressure/Pain that spreads to shoulders, neck, arms, or jaw
- Breathing difficulty, dizziness
- Nausea, fatigue

**Care**
- Activate EAP/Call EMS
- Have guest rest in most comfortable position
- Assist guest with medication such as nitroglycerin, or Asprin
- Be ready to begin BLS at anytime

### Stroke

**Signs/Symptoms**
- Weakness or numbness on one side of the body
- Vision problems / Speech problems
- Dizziness, loss of balance
- Confusion, nausea, fatigue
- Sudden extreme headache

**Care**
- Activate EAP/Call EMS
- Have guest rest in most comfortable position
- Place the guest into the recovery position if nausea or vomiting occurs
- Be ready to begin BLS at anytime

### Heat Emergency

**Signs/Symptoms**
- Muscle cramps
- Dizziness, nausea, vomiting
- Fatigue, Headache
- Extreme thirst, hot dry skin or moist skin
- Rapid pulse, confusion
- Seizure

**Care**
- Have guest rest in a cool location
- Remove excess clothing
- Provide cool water (if conscious and not nauseous). Gently stretch cramped muscles
- Fan and place ice packs in the armpits, groin, and neck
- CALL EMS if the guest does not improve quickly or loses consciousness

### Cold Emergency

**Signs/Symptoms**
- Shivering
- Confusion / Sluggishness
- Cold skin

**Care**
- Place the guest in a warm location, resting in a comfortable position
- Replace wet clothing with dry and cover with blankets
- Provide a warm, sugary beverage (if able to drink comfortably)
- Call EMS if condition does not rapidly improve or the guest loses consciousness

### Fainting

**Signs/Symptoms**
- Weakness, confusion, dizziness
- Head and/or abdominal pain
- "Feeling like" they may faint

**Care**
- Have the guest lie down if the feel faint
- If already fainted, confirm CABs and check for signs of injury from the fall and place in the recovery position
- Be ready to begin BLS at anytime
- Call EMS if the guest does not regain consciousness quickly

### Seizures

**Signs/Symptoms**
- Report of strange sensations, confusion, dizziness
- Unusual behavior, muscle ridgidity, convulsions
- Altered levels of consciousness

**Care**
- Protect the guest's head and move items away from the guest to protect against injury (cushion the head with a towel)
- Place in the recovery position and monitor the airway
- Call EMS and be ready to begin BLS care

### Shock Hypovolemic & Anaphylatic

**Signs/Symptoms**
- Anxiety, cool pale moist skin
- Rapid or difficulty breathing
- Rapid pulse, weakness
- Hives, itching, swelling

**Care**
- Activate EAP/Call EMS
- Place the guest on their back (no longer elevate the legs)
- Place in recovery position and maintain normal body temperature
- Provide supplemental oxygen
- Help the guest self-administer any medication for an allergic reaction

### Diabetic Emgencies

**Signs/Symptoms**
- Diminished level of consciousness
- Weakness, hunger, thirst
- Vision and breathing difficulty
- Fruity breath odor

**Care**
- Activate EAP/Call EMS if the guest is unresponsive or unconscious
- For conscious guests who are able to swallow, ask them to provide any treatment needs or medication to self-administer. Offer sugary drinks if the conscious guest is unable to provide information concerning the diabetic condition

### Asthma / Respritory Distress

**Signs/Symptoms**
- Difficulty breathing, coughing, wheezing
- Shallow breathing
- Fatigue

**Care**
- Have the sit in an upright or slightly bent forward position in a comfortable location
- Retrieve/assist with any self-administered medication the guest may have
- Provide supplemental oxygen
- Call EMS the guest's condition does not improve quickly

### Poison, Alcohol/Drug overdose

**Signs/Symptoms**
- Headache, nausea, vomiting, mouth burns
- Dizziness, altered levels of consciousness, drowsy
- Smell of alcohol or of the poison

**Care**
- Place the guest in the recovery position and contact EMS. Call poison control at 800-222-1222 - follow their directions
- Find out what was ingested or inhaled and consult MSDS books, labels, etc for care
- Provide oxygen and be ready to begin BLS

# INTERNATIONAL LIFEGUARD TRAINING PROGRAM™

## BASIC FIRST RESPONDER CARE SUMMARY MATRIX

## INJURIES – SIGNS/SYMPTOMS AND BASIC CARE SUMMARY

### Suspected Head/Spinal Injuries (non-aquatic)

| Signs/Symptoms | Care |
|---|---|
| • Altered / loss of consciousness<br>• Pain, tenderness, deformity, bruising anywhere on head/back<br>• Paralysis<br>• Blood from ears or nose | • Activate EAP/Call EMS<br>• Minimize head and body movement. Encourage the guest to remain calm and not move<br>• Only move the guest if vomiting occurs and if so, log roll the guest into the recovery position as a single unit<br>• Control obvious bleeding |

### Muscle, Bone, Joint Injuries

| Signs/Symptoms | Care |
|---|---|
| • Deformity of body part, tenderness, pain, swelling<br>• Discoloration, bruising<br>• Crepitus<br>• Exposed bone ends<br>• Inability to move injured body part | • Activate EAP/Call EMS. Control bleeding<br>• Allow the guest to position the body part in the most comfortable positon<br>• Stabilize the injured body part using an anatomical splint or with your hands until EMS arrives<br>• Cover open wounds with dressing<br>• Apply ice packs |

### Soft Tissue Emergency: External Bleeding

| Signs/Symptoms | Care |
|---|---|
| • External bleeding | • Activate EAP/EMS<br>• Apply direct pressure with sterile gauze pads. If blood soaks through, apply more gauze on top of it<br>• Use roll gauze to maintain pressure and cleanliness of wound<br>• No longer elevating or finding pressure point |

### Soft Tissue Emergency: Impaled object/amputation

| Signs/Symptoms | Care |
|---|---|
| • External bleeding<br>• Impaled object<br>• Amputation | • Activate EAP/EMS<br>• Apply direct pressure with sterile gauze pads as indicated for external bleeding<br>• If an imbedded object, leave in place and stabilize so movement is minimized<br>• Retrieve amputated part. Place in plastic bag and keep the part cool and dry. Give to EMS |

### Soft Tissue Emergency: Nose Bleed

| Signs/Symptoms | Care |
|---|---|
| • Blood flowing from the nose | • Have the guest sit down and lean slightly forward<br>• Have the guest pinch their nostrils together at the bridge of the nose for up to 10 minutes<br>• If bleeding is not controlled after 10 minutes or if there is any other injury or medical condition present (such as spinal injury or hypertension) contact EMS |

### Soft Tissue Emergency: Burns

| Signs/Symptoms | Care |
|---|---|
| • Red swollen skin (first degree)<br>• Blistering burn (second degree)<br>• Full thickness damage, little pain, multicolored skin (third degree) | • Cool first and second degree burns with water, leave third degree burns dry (clean dry chemical burns before applying water)<br>• Do not apply pressure to blisters and cover loosely with dry sterile dressing (second and third degree burns)<br>• Remove any smoldering clothing or jewelry<br>• Call EMS for second and third degree burns or severe first degree burns. Perform BLS if needed |

### Mouth Injuries

| Signs/Symptoms | Care |
|---|---|
| • Bitten/cut lip or tongue<br>• Knocked out tooth | • Apply direct pressure (see external bleeding)<br>• Apply ice pack - contact EMS if bleeding is not controlled quickly<br>• If a knocked out tooth, find the tooth and avoid touching the root. Place the tooth in a cup and have the guest provide saliva to keep it moist<br>• Advise the guest to see a dentist immediately |

### Eye Injuries: Object in the eye/penitrating injury

| Signs/Symptoms | Care |
|---|---|
| • Single or multiple objects/particles in the eye<br>• Sharp object penetrates the eye | • Activate EAP/EMS if the guest is in pain or if the injury is severe<br>• For particles in the eye, rinse with warm water or eye wash pulling the upper eye lid open. Use sterile gauze to remove any particle seen<br>• For an imbedded object, stabilize object with dressings, controlling bleeding and covering the other |

### Eye Injuries: Blow to the eye/cut to the eye

| Signs/Symptoms | Care |
|---|---|
| • Bleeding<br>• Bruising<br>• Eye avulsion (knocked out eyeball) | • Activate EAP/EMS if the injury is severe or if vision is compromised<br>• For blows to the eye, apply a coldpack for 15 min<br>• For a severe blow resulting in an avulsion, cover both eyes with loose dressing and protect the injured area with a paper cup secured to the head<br>• For cuts with or without bleeding, cover with sterile dressing, avoiding pressure directly on the eye |

### Eye Injuries: Chemicals in the eye

| Signs/Symptoms | Care |
|---|---|
| • Burn around the eye<br>• Pain | • Activate EAP/EMS (vision is at risk with this injury)<br>• Hold the eye wide open and flush with warm water for at least 20 min, continuously and gently. Irrigate from the nose side of the eye toward the outside to avoid flushing material into the other eye<br>• Loosely bandage both eyes with wet dressings<br>• Confirm that other burn injuries are not present, treat if found |

# INTERNATIONAL LIFEGUARD TRAINING PROGRAM™

## Basic Life Support Sequence and Component Matrix
### (Based upon the 2010 CPR and Emergency Cardiac Care Guidelines)

The following sequence is provided for Healthcare Provider level Basic Life Support care when a person of any age is found on land, apparently unresponsive.

- **Quickly check the scene for safety**, correct if unsafe (if possible). Put on exam gloves.
- **Shake and shout**, "Are you ok?" **while simultaneously quickly checking for obvious signs of normal breathing** (while checking for responsiveness, look at the chest for signs of normal breathing. If breathing is gasping, weak or the rescuer is uncertain if the patient is breathing during this quick check – the rescuer should proceed as if breathing is absent). If obvious normal breathing is determined, place in the recovery position and provide appropriate care based upon signs and symptoms found.
- **Activate the EAP / Contact EMS**. Retrieve BLS equipment, including AED and Supplemental Oxygen.
- **If breathing is absent or inadequate**, quickly position for a pulse check at the carotid artery in the neck (brachial artery in the arm for infants) for up to 10 seconds. Pulse must be clearly felt (if the rescuer is uncertain or pulse is hardly detectable, assume no pulse).
- **If a definite pulse is found**: Begin Rescue Breathing appropriate for the age of the patient (see matrix), reassessing pulse after approximately 2 minutes. If a pulse is found during reassessment, continue rescue breathing, reassessing pulse every 2 minutes.
- **If no pulse is found**: Begin CPR – 30 Chest Compressions followed by 2 ventilations (15:2 for multiple rescuers working on a child or infant patient). Switch compressors every 2 minutes (for multiple rescuers). When an AED is available, immediately turn on, properly attach, and follow the prompts. After each shock is advised and delivered or if no shock advised, immediately begin CPR until prompted to stand clear by the AED to reanalyze (approximately 2 minutes). Continue with CPR after each analysis/shock or no shock.
- **Ventilations do not go in:** If while providing ventilations (during rescue breathing or CPR cycles), visible chest rise is not achieved, quickly re-tilt and attempt a second ventilation. If the second ventilation does not go in, immediately begin 30 chest compressions. After the compressions, quickly check the mouth. If an object is seen, finger sweep (suction if fluid) and attempt two ventilations. Repeat until ventilations are successful. Once visible chest rise is achieved with a ventilation attempt, continue with the care previously being administered.

| SYMPTOM/CARE | ADULT (Puberty onset and older) | CHILD (Prepubescent) | INFANT (Approximately less than 1 year old) |
|---|---|---|---|
| **Initial Check** | Quick check for responsiveness and obvious signs of breathing | Quick check for responsiveness and obvious signs of breathing | Quick check for responsiveness and obvious signs of breathing |
| **If no obvious Normal Breathing** | Check for pulse in carotid artery for up to 10 seconds | Check for pulse in carotid artery for up to 10 seconds | Check for pulse in brachial artery for up to 10 seconds |
| **Definite Pulse Found** | Begin Rescue Breathing (RB): **1 ventilation every 5 seconds** for 2 minutes, then reassess pulse. (about 24 ventilations) | Begin Rescue Breathing (RB): **1 ventilation every 3 seconds** for 2 minutes, then reassess pulse. (about 40 ventilations) | Begin Rescue Breathing(RB): **1 ventilation every 3 seconds** for 2 minutes, then reassess pulse. (about 40 ventilations) |
| **Duration/strength of each ventilation (RB and CPR)** | About 1 second, of sufficient volume to produce a visible chest rise | About 1 second, of sufficient volume to produce a visible chest rise | About 1 second, of sufficient volume to produce a visible chest rise |
| **No Pulse Found (Single Rescuer)** | **30 Chest Compressions followed by 2 ventilations** | **30 Chest Compressions followed by 2 ventilations** | **30 Chest Compressions followed by 2 ventilations** |
| **No Pulse Found (Multiple Rescuers)** | **30 Chest Compressions followed by 2 ventilations** for 2 minutes (about 5 cycles). Switch compressors | **15 Chest Compressions followed by 2 ventilations** for 2 minutes (about 8 cycles). Switch compressors | **15 Chest Compressions followed by 2 ventilations** for 2 minutes (about 8 cycles). Switch compressors. |
| **Compressions: depth, method, and compression rate** | 2 inch depth, with two hands on the center of the chest (lower sternum above xyphoid); at least 100 compressions per minute | 1/3 depth of chest depth with 1 or 2 hands on the center of the chest (lower sternum above xyphoid); at least 100 compressions per minute | 1/3 depth of chest depth using two fingers below nipple line or two thumb encircling method for multiple rescuers; at least 100 compressions per minute |
| **When to attach the AED and age defined pads** | Immediately – When no pulse is detected and as soon as the AED is available with adult pads | Immediately – When no pulse is detected and as soon as the AED is available (Pediatric pads recommended – if none, adult pads are acceptable) | Immediately – When no pulse is detected and as soon as the AED is available (Pediatric pads recommended – if none, adult pads are acceptable) |
| **AED and CPR Integration** | Shock advised and delivered or no shock advised – immediately start CPR cycles beginning with compressions until prompted to stand clear (2 minutes). | Shock advised and delivered or no shock advised – immediately start CPR cycles beginning with compressions until prompted to stand clear (2 minutes). | Shock advised and delivered or no shock advised – immediately start CPR cycles beginning with compressions until prompted to stand clear (2 minutes). |

# Basic Life Support
## Best Practices

**PRIORITY OF CARE, "CAB":**

- **Compressions** – If after determining that the patient is suffering from cardiac arrest (no pulse), early chest compressions provide the patient with immediate care that may provide the best opportunity for a successful outcome. In team management (multiple rescuers) situations, it allows for one rescuer to begin care, without delay while other team members retrieve and prepare equipment (such as oxygen, BVM, and AED). Evidence shows that oxygen levels in the blood tend to be high during the first few minutes after cardiac arrest. As such, immediate opening of the airway and ventilation techniques performed first does not improve the outcome during cardiac arrest when compared to chest compressions.
- **Airway** – The rescuer no longer "looks, listens and feels for breathing" after opening the Airway. The Airway is opened to deliver ventilations during appropriate times during the BLS sequence (see "Breathing")
- **Breathing** – If a patient does not have a pulse, the first two Ventilations will be delivered after 30 compressions. If the patient does have a definite pulse and no obvious signs of normal breathing, Ventilations are delivered using the appropriate Rescue Breath to seconds' ratio for the age of the patient for approximately two minutes, followed by reassessment of the pulse. Breathing is never directly assessed, beyond what can be obviously observed by looking at the chest during a quick check during the initial check for responsiveness. Gasping and other breathing like (but ineffective) behavior, such as Agonal breathing **will not** be interpreted as **Normal Breathing**. If Agonal breathing is observed by the rescuer, appropriate BLS care must be continued.

**CPR - PUSH FAST, PUSH HARD:**

- Compression rate of at least 100 compressions in 60 seconds. A recommended method of maintaining the correct compression pace is to think of the beat in the song "Staying Alive" by The Bee Gees which is about 100 beats per minute.
- Compressions for ADULTS should be at least 2 inches deep.
- Compressions for CHILDREN and INFANTS should be about 1/3 the depth of anterior-posterior diameter of the patient's chest.
- Compressions must allow for the full recoil of the chest in order to be fully effective.
- Rescuers should perform 30 chest compressions in about 18 seconds.
- Rescuers continue compressions and ventilations sequence until an AED is available or until EMS arrives and takes over care.
- Rescuers responding in teams switch out who is performing compressions every two minutes or whenever there is a change in care or equipment (such as AED arrival) to help ensure maximum effectiveness and reduce rescuer fatigue.
- The time period between each set of compressions must be minimized. It should only take a few seconds to deliver two effective ventilations and then return to the next set of compressions.

**VENTILATIONS:**

- Rescuers perform the **Jaw Thrust with head tilt** technique with a Seal Easy Mask or Bag Valve Mask to quickly open the airway to deliver ventilations to patients without a suspected spinal injury. If spinal injury is suspected, the **Jaw Thrust without head tilt** technique should be used.
- A ventilation should be provided for a duration of about 1 second during CPR ventilations and Rescue Breathing.
- Over ventilation is to be avoided as it may cause complications, such as vomiting due to gastric inflation which will delay continued CPR care. Over ventilation also decreases the overall effectiveness of the care due to the increase in intrathoracic pressure, decreasing the venous return of blood to the heart which reduces the overall cardiac output.
- Bag Valve Mask equipment with oxygen requires two rescuers to operate effectively (one to place the mask on the mouth and monitor/maintain an open airway while the other rescuer delivers ventilations by squeezing the bag while monitoring for visible chest rise). If two rescuers are not available to operate (or one is needed for compressions, AED set up, etc.), it is more effective for the remaining rescuer to utilize a pocket mask with oxygen supplementation, if available.
- Care must not be delayed while setting up equipment. Chest compressions (or rescue breathing if appropriate) should be continued until equipment ready and rescuers are prepared to assist.

**AED:**

- Rescuers retrieve the AED (and other BLS equipment) as soon as an unresponsive patient is discovered.
- The AED equipment must be applied as soon as it is available when treating a patient without a definite pulse.
- Care is interrupted only long enough to prepare the patient for AED placement (removal of clothing, shaving if excessively hairy, etc.)
- If the patient is wet, he or she must be quickly dried off (chest area) and precautions should be taken to keep the chest area dry during care (rescuers who are wet should avoid chest compressions until they are dry).
- The rescuer / rescuer team must apply the electrode pads, following the AED manufacturer's instructions. Pediatric pads / dose attenuator are recommended for Child and Infant patients, but if these are not available, adult pads are acceptable.
- Rescuers must follow AED prompts. If analysis indicates a shock is advised, the shock should be delivered and CPR, beginning with chest compressions must be immediately resumed. If analysis indicates no shock advised, CPR, beginning with chest compressions must be immediately resumed. Some AEDs may prompt for reassessment of breathing and/or pulse during subsequent analysis due to being programmed at the 2005 ECC standard for basic prompting. Rescuers should immediately resume compressions after each analysis followed by a shock or no shock delivery.
- Rescue teams must coordinate and practice quick, efficient hands on/hands off transitions to reduce the amount of time between shocks delivery and chest compressions.

**Drowning:**

- Evidence supports first opening the airway and attempting ventilations prior to removal of an unresponsive patient during a water rescue. Upon extrication, the standard "CAB" would resume (See BLS Protocols for an unconscious guest in the water).