

DIVING EMERGENCY MANAGEMENT PROVIDER



Section 2 - BLS: CPR & First Aid

CHAPTER 2 REVIEW QUESTIONS

- The goal of CPR (without defibrillation) is to maintain adequate circulation of oxygenated blood to vital organs such as the**
 - spleen and pancreas
 - stomach and kidney
 - heart and brain
 - liver and muscles
- Exhaled air contains about 10% oxygen**
 - True
 - False
- To avoid legal problems, always ask a patient for _____ before you provide first aid. This may be done by stating: _____**
 - permission; "My name is... I am a first aid provider. May I help you?"
 - autograph; "My name is... I am a first-aid provider. May I help you?"
 - certification card; "My name is... I am a first-aid provider. May I help you?"
- The five links in the chain of survival in correct order are**
 - 10177, CPR, AED, Advanced Cardiac Life Support, post-Cardiac Arrest Care
 - CPR, 10177, AED, Advanced Cardiac Life Support, post-Cardiac Arrest Care
 - AED, Advanced Cardiac Life Support, post-Cardiac Arrest Care, 10177, CPR
 - post-Cardiac Arrest Care, Advanced Cardiac Life Support, 10177, CPR, AED
- When calling EMS you should tell them**
 - what happened and the condition of the injured person
 - the location of the emergency and a call-back number
 - how many persons are involved
 - your name and the first aid provided
 - all of the above
- During CPR, the function of the heart and lungs are temporarily taken over by**
 - chest compressions and ventilations
 - cardiac defibrillation and an oxygen bottle
 - advanced medications and ventilator machines
- In the case of children and drowning victims, once unresponsiveness has been established, the single rescuer should**
 - check for injuries
 - check the mouth for foreign bodies
 - activate EMS
 - perform CPR for 2 minutes and then call EMS
- Emotional stress may occur before, during or after a rescue**
 - True
 - False
- In most cases, the heart restarts after someone performs CPR**
 - True
 - False

CHAPTER 3 REVIEW QUESTIONS

- The respiratory system includes the**
 - heart, lungs, brain
 - arteries, spinal cord, nose
 - nose, trachea, lungs
 - bones, muscles, skin
- The cardiovascular system includes the**
 - veins, arteries, heart
 - mouth, lungs, stomach
 - skin, bones, muscles
 - nose, lungs, pharynx
- Gas exchange takes place at the**
 - vein-artery interface
 - long bone joints
 - alveolar-capillary membrane
 - muscle-nerve junctions
 - lungs

CHAPTER 4 REVIEW QUESTIONS

1. **Potential dangers at the scene of an accident or injury requiring assistance may include**
 - a. fire, downed power lines, overcast skies
 - b. animals, fire, chemicals
 - c. chemicals, sunny skies, open beaches
 - d. all of the above
2. **The S-A-F-E mnemonic helps us remember**
 - a. to activate EMS
 - b. scene safety assessment
 - c. to use personal protective equipment
 - d. b and c
 - e. none of the above
3. **Personal protective equipment is a critical part of keeping yourself safe while providing care**
 - a. True
 - b. False
4. **Protective equipment includes**
 - a. non-latex gloves
 - b. eye shields
 - c. resuscitation masks
 - d. all of the above
5. **When removing gloves after providing first aid, it is important to keep the outer surface of the glove from touching your skin during removal**
 - a. True
 - b. False

CHAPTER 5 REVIEW QUESTIONS

1. **Any breath sounds at all are considered normal**
 - a. True
 - b. False
2. **Placing an unconscious, breathing victim in the recovery position is important to maintain an open airway and to minimise the potential of blood and vomit to cause obstruction**
 - a. True
 - b. False
3. **Persons with back, neck or pelvic injuries should not be placed in the recovery position**
 - a. True
 - b. False

CHAPTER 6 REVIEW QUESTIONS

1. **Possible signs and symptoms of heart attack include**
 - a. heavy pressure or squeezing in the chest
 - b. shortness of breath
 - c. shoulder, arm or jaw pain
 - d. all of the above
 - e. a and b only
2. **The recommended rate of compression for an adult is**
 - a. 60-80 per minute
 - b. 120 per minute
 - c. at least 140 per minute
 - d. rate is not important as long as compressions are being done
3. **The recommended depth of chest compression for an adult is**
 - a. 4-5 cm
 - b. 5-6 cm
 - c. 7-8 cm
 - d. depth is not important as long as compressions are being done
4. **The compression-to-ventilation ratio for an adult is**
 - a. 30:2
 - b. 15:2
 - c. 5:1
 - d. 50:2
5. **Full CPR is always recommended for drowning and scuba diving injuries**
 - a. True
 - b. False
6. **Each ventilation should last about**
 - a. 2 seconds
 - b. 1 second
 - c. 5 seconds

CHAPTER 7 REVIEW QUESTIONS

1. **The use of an AED is often helpful but may decrease the chance of survival**
 - a. True
 - b. False
2. **Every minute the heart is in fibrillation, survival rates decrease by**
 - a. 3-5%
 - b. 7-10%
 - c. 12-15%
 - d. 20-25%
3. **All cardiac arrests can benefit from the shock delivered by an AED**
 - a. True
 - b. False
4. **The charge from a delivered shock should be allowed to dissipate before touching the patient to resume CPR**
 - a. True
 - b. False

CHAPTER 8 REVIEW QUESTIONS

- 1. The most common cause of airway obstruction and choking in adults is**
 - a. tongue
 - b. food
 - c. dentures
- 2. Grasping the throat is a common sign made by choking victims**
 - a. True
 - b. False
- 3. If you suspect that someone is choking, _____**
 - a. look in the mouth
 - b. check for responsiveness
 - c. ask "Are you choking?"
 - d. ask a doctor
- 4. With complete airway obstruction, the victim will be unable to _____ but might nod his head in response to your question. If the victim is unable to speak or has a limited ability to move air, he may soon lose _____**
 - a. yell for help, his breath
 - b. talk, his breath
 - c. breathe/cough/speak, consciousness
- 5. In the case of a partial airway obstruction, the rescuer should encourage the choking victim to cough but should do nothing else**
 - a. True
 - b. False
- 6. If the victim at any time becomes unconscious, the rescuer should _____**
 - a. allow the victim to drop to the floor in the hope that the fall will dislodge the foreign body
 - b. ease the victim to the ground, remove the foreign body if visible, and start CPR
 - c. ease the victim to the ground, initiate supplemental oxygen therapy
- 7. What must you do when a victim regurgitates?**
 - a. roll the patient on his side, and wipe or suction out the mouth
 - b. blow vomit back into the stomach
 - c. remove gloves, and wipe away vomit with bare hands

CHAPTER 9 REVIEW QUESTIONS

- 1. First aid is care provided for injuries or illnesses that are not life-threatening**
 - a. True
 - b. False
- 2. The A in S-A-M-P-L-E stands for**
 - a. allergies
 - b. asthma
 - c. anxiety
 - d. aneurism

CHAPTER 10 REVIEW QUESTIONS

1. **The first step in rewarming is to prevent further heat loss**
 - b. True
 - c. False
2. **Management of hypothermia may include**
 - a. removal from the cold
 - b. removal of wet clothing
 - c. use of blankets and heat packs
 - d. calling EMS
 - e. all of the above
3. **Heat stroke is a medical emergency that requires aggressive cooling and activation of EMS**
 - a. True
 - b. False

CHAPTER 11 REVIEW QUESTIONS

1. **Patient movement should be avoided except to move the person onto his back to perform CPR or when the current location places the victim or rescuer at risk of further injury**
 - a. True
 - b. False
2. **Body mechanics to be followed by the rescuer when lifting include**
 - a. keeping his back straight and bending from the hips
 - b. lifting with his legs
 - c. keeping his head in a neutral position
 - d. all of the above

DIVING EMERGENCY MANAGEMENT PROVIDER



Section 3 - Neurological Assessment

CHAPTER 2 REVIEW QUESTIONS

1. **The nervous system consists of the**
 - a. brain, spinal cord and nerves
 - b. vertebrae and skull
 - c. heart, lungs and brain
 - d. head, torso and limbs
2. **Neural pathways may be interrupted by**
 - a. stroke
 - b. decompression illness
 - c. trauma
 - d. all of the above

CHAPTER 3 REVIEW QUESTIONS

1. **Decompression illness includes AGE and DCS**
 - a. True
 - b. False
2. **Pain, numbness and paresthesia are the most common signs of decompression illness**
 - a. True
 - b. False
3. **DCS is caused by**
 - a. breath-hold during descent
 - b. breath-hold during ascent
 - c. inert gas bubbles in the body
4. **The primary risk factor for AGE is**
 - a. breath-hold during descent
 - b. breath-hold during ascent
 - c. inert gas bubbles in the body
5. **It is important to seek proper medical evaluation in cases of suspected DCI since**
 - a. symptom resolution with oxygen first aid does not mean DCI has been resolved
 - b. symptoms may return without hyperbaric treatment
 - c. recurrence of symptoms may be reduced with hyperbaric treatment
 - d. all of the above
6. **The single most common symptom of DCI is**
 - a. numbness
 - b. constitutional (fatigue, nausea)
 - c. muscle weakness
 - d. pain
 - e. issues with balance/equilibrium
7. **Initial DCS symptoms**
 - a. occur within 15 minutes of the time of injury
 - b. typically occur within six hours of surfacing
 - c. may be delayed up to 24 hours
 - d. both b and c
8. **AGE symptoms**
 - a. occur within 15 minutes of the time of injury
 - b. typically occur within six hours of surfacing
 - c. may be delayed up to 24 hours
 - d. both b and c
9. **Returning to diving following decompression illness should be done in conjunction with a physician knowledgeable in dive medicine**
 - a. True
 - b. False

CHAPTER 4 REVIEW QUESTIONS

1. **F-A-S-T stands for**
 - a. facts, attitude, sensitivity, talent
 - b. face, arms, speech, time
 - c. feet, arms, spine, toes
 - d. face, ankles, stability, touch
2. **EMS should be called**
 - a. as soon as you suspect a neurological injury
 - b. after you have conducted a neurological assessment
 - c. a period of time after the first assessment so you can advise EMS if there are changes
 - d. only if requested by the injured person
3. **Which of the following is not one of the areas evaluated during a neurological assessment?**
 - a. mental function
 - b. cranial nerves
 - c. motor function
 - d. flexibility
 - e. coordination and balance
4. **Mental function evaluates**
 - a. orientation to person, place, time and event
 - b. memory and speech
 - c. comprehension and computational skills
 - d. all of the above
5. **Which of the following is not part of the cranial nerves evaluation?**
 - a. facial droop
 - b. eye movements
 - c. grip strength
 - d. slurred speech
6. **Motor functions may be classified as normal, evidence of weakness or paralysis**
 - a. True
 - b. False
7. **The Romberg test assesses**
 - a. motor function
 - b. cranial nerves
 - c. mental status
 - d. balance



Section 4 - Emergency Oxygen for Scuba Diving Injuries

CHAPTER 2 REVIEW QUESTIONS

1. **Oxygen is a clear, odorless gas essential to life**
 - a. True
 - b. False
2. **The atmospheric air we inhale contains ____% oxygen**
 - a. 12
 - b. 16
 - c. 21
 - d. 27
3. **The air we exhale contains ____% oxygen**
 - a. 12
 - b. 16
 - c. 21
 - d. 27
4. **Oxygen is carried throughout the body by**
 - a. white blood cells
 - b. red blood cells
 - c. bone marrow
 - d. blood plasma
5. **Carbon dioxide is**
 - a. a waste product of metabolism
 - b. a toxic gas
 - c. essential for life
 - d. an inert gas
6. **Nitrogen comprises ____% of atmospheric air**
 - a. 21
 - b. 27
 - c. 67
 - d. 78
7. **Carbon monoxide is**
 - a. a waste product of metabolism
 - b. a toxic gas
 - c. essential for life
 - d. an inert gas

CHAPTER 3 REVIEW QUESTIONS

1. **Providing a high concentration of oxygen to an injured diver may provide these benefits**
 - a. acceleration of inert-gas elimination
 - b. reduce bubble size
 - c. enhance oxygen delivery to tissues
 - d. reduce swelling
 - e. all of the above
2. **The primary goal of providing the highest concentration of oxygen possible to an injured diver is to facilitate inert-gas washout and improve oxygen delivery to compromised tissues**
 - a. True
 - b. False
3. **Percentage of oxygen delivered when using a demand valve is influenced by**
 - a. flow rate
 - b. mask fit
 - c. mask seal
 - d. both b and c
4. **The initial flow rate for constant-flow oxygen delivery is**
 - a. 2-4 lpm
 - b. 10-15 lpm
 - c. 20-25 lpm
 - d. the rate the injured diver will tolerate

5. **In remote areas, the priority in oxygen delivery is**
- to conserve oxygen supplies
 - to maximise highest inspired fraction of oxygen
 - limit the flow of oxygen
6. **Oxygen toxicity, whether CNS or pulmonary, is not a concern when providing oxygen first aid to an injured diver**
- True
 - False
7. **Which of the following is not a symptom of non-fatal drowning?**
- difficulty breathing
 - rapid pulse
 - cyanosis (blue-coloured lips)
 - abdominal distention
 - chest pain
8. **As a first responder to a non-fatal drowning, your primary role is to**
- monitor vital signs
 - provide supplemental oxygen
 - transport victim to the nearest medical facility
 - all of the above

CHAPTER 4 REVIEW QUESTIONS

1. **Oxygen is one element of the fire triangle**
- True
 - False
2. **The risks of handling oxygen can be reduced by**
- keeping the oxygen units free of hydrocarbons found in oils and lubricants often kept on dive boats
 - slowly opening the oxygen cylinder
 - keeping the unit away from the heat of the sun
 - all of the above
3. **Contact with grease and exposure to high temperatures are of no concern with oxygen equipment**
- True
 - False
4. **With what grade of oxygen should an oxygen cylinder for diving first aid be filled?**
- aviator or industrial grade
 - medical grade only
 - medical or industrial grade
 - aviator or medical grade
5. **Methods for obtaining oxygen fills may include**
- prescription
 - documentation of training in oxygen delivery
 - prospective prescription
 - all of the above
6. **When should an oxygen unit's components and cylinder pressure be checked?**
- every two years
 - before every outing
 - every week
 - annually
7. **An oxygen unit should be stored**
- with the valve closed
 - in its protective case
 - assembled
 - all of the above
8. **It is not necessary to clean oxygen parts and masks**
- True
 - False

CHAPTER 5 REVIEW QUESTIONS

1. Which of the following is not part of an oxygen delivery system?
 - a. oxygen cylinder
 - b. pressure-reducing regulator
 - c. lubricants to facilitate assembly
 - d. oxygen hose
 - e. face mask
2. What is the primary consideration when choosing an oxygen cylinder?
 - a. capacity
 - b. distance to medical assistance
 - c. cylinder markings
3. A multifunction regulator is preferred in emergency oxygen for scuba diving injuries because it can provide emergency oxygen to two injured divers at the same time
 - a. True
 - b. False
4. An oxygen cylinder should be switched during care when the pressure drops below 200 psi if another cylinder is available or, if another cylinder is not available, use the cylinder until it is empty
 - a. True
 - b. False
5. Oxygen cylinders are subject to periodic visual and hydrostatic testing
 - a. True
 - b. False
6. Oxygen cylinder marking colours are standardised throughout the world to avoid confusion
 - a. True
 - b. False
7. Oxygen regulators are fitted with a pin indexing system to prevent use on other cylinder valves that may not contain oxygen
 - a. True
 - b. False
8. A demand valve flows only when the injured diver inhales, allowing the oxygen to last longer
 - a. True
 - b. False
9. A bag valve mask
 - a. is a self-inflating bag with a mask that aids in rescue breathing
 - b. has a manual trigger that initiates oxygen flow
 - c. is best used by two rescuers working together
 - d. a and c
10. Manually triggered ventilators
 - a. allow rescuers to deliver high concentrations of oxygen to non-breathing or inadequately breathing divers
 - b. can also function as a demand valve
 - c. is best used by two rescuers
 - d. all of the above
11. A constant flow mask that is recommended when a breathing injured diver cannot activate the demand inhalator valve or when there is more than one injured diver is a
 - a. non-rebreather mask
 - b. oronasal resuscitation mask
 - c. bag valve mask



Section 5 - First Aid for Hazardous Marine Life Injuries

CHAPTER 2 REVIEW QUESTIONS

- 1. The three general categories of marine life injuries include**
 - a. envenomations
 - b. traumatic injuries
 - c. seafood poisoning
 - d. all of the above
- 2. Envenomation is a process facilitated by bites, punctures or stings**
 - a. True
 - b. False
- 3. Marine animal bites are usually fatal**
 - a. True
 - b. False
- 4. Seafood poisoning is the result of contaminated food or liquids**
 - a. True
 - b. False

CHAPTER 3:1 REVIEW QUESTIONS

- 1. Envenomations may occur by**
 - a. stings
 - b. spines
 - c. bites
 - d. barbs
 - e. all of the above
- 2. Envenomations may occur only during accidental contact**
 - a. True
 - b. False
- 3. The health status of the injured person, sensitivity to the venom and delays in receiving first aid impact the victim's response to the injury**
 - a. True
 - b. False
- 4. First-aid steps for treating venomous fish injuries include all of the following, except**
 - a. wash area
 - b. remove foreign matter
 - c. control bleeding
 - d. induce vomiting
 - e. control pain
- 5. Pressure immobilisation is recommended for which vertebrate injury?**
 - a. stingray
 - b. nurse shark
 - c. sea snake
 - d. goliath grouper

CHAPTER 3:2 REVIEW QUESTIONS

1. **What are the four steps in first aid for jellyfish stings in the correct order?**
 - a. inactivation, remove tentacles, wash area, treat symptoms
 - b. remove tentacles, wash area, treat symptoms, inactivate
 - c. treat symptoms, wash area, remove tentacles, inactivate
2. **Pressure immobilisation is recommended for which invertebrate marine life injuries?**
 - a. anemones and blue-ringed octopus
 - b. cone snail and blue-ringed octopus
 - c. bristle worms and sea cucumbers
 - d. fire coral and sponges
3. **First aid for contact injuries includes**
 - a. controlling bleeding
 - b. washing area thoroughly
 - c. removing any foreign material
 - d. leaving blisters intact
 - e. all of the above

CHAPTER 4 REVIEW QUESTIONS

1. **Marine animals bite when**
 - a. they feel threatened
 - b. humans are mistaken for food
 - c. humans engage in spearfishing or feeding
 - d. all of the above
2. **Infection is of particular concern with marine animal bites**
 - a. True
 - b. False
3. **Which of the following is the first line of action to control external bleeding?**
 - a. direct pressure
 - b. tourniquets
 - c. haemostatic dressings
4. **A tourniquet should be placed**
 - a. if the wound exhibits massive arterial bleeding
 - b. if bleeding is not stopped by direct pressure over the wound
 - c. 2.5-5 cm above the wound
 - d. all of the above
5. **A tourniquet should be removed after two hours, regardless of continued bleeding**
 - a. True
 - b. False
6. **Signs and symptoms of infection include**
 - a. pus, redness, sweating, hyperthermia
 - b. prickly feeling, rash, increased thirst, sweating, heat
 - c. pain, redness, immobility, swelling, heat

CHAPTER 5 REVIEW QUESTIONS

1. **Contaminated seafood may taste and smell normal**
 - a. True
 - b. False
2. **Seafood poisoning is triggered by**
 - a. bacteria
 - b. parasites
 - c. viruses
 - d. toxins
 - e. all of the above

3. The three primary seafood poisonings discussed in this chapter do not include

- a. ciguatera
- b. scombroid
- c. shellfish poisoning
- d. tetrodotoxin

4. The most effective way to prevent seafood poisoning is to

- a. only eat fish you have caught and cleaned yourself
- b. store fish properly
- c. cook fish thoroughly
- d. eat fish that has a slightly fishy smell

CHAPTER 6 REVIEW QUESTIONS

1. The signs and symptoms of allergic reaction include

- a. itching
- b. localised redness with swelling (hives)
- c. swelling affecting eyes, lips and possibly the airway
- d. all of the above

2. In the event of an allergic reaction, the rescuer should

- a. assist the injured person with any medications prescribed for him
- b. monitor airway and breathing
- c. immediately begin CPR
- d. all of the above
- e. a and b only

3. Cardiogenic shock refers to

- a. a decrease in blood volume
- b. the heart's inability to circulate blood
- c. an allergic reaction
- d. all of the above
- e. none of the above

4. The primary course of action for cardiogenic shock is to

- a. immediately call EMS and be prepared to begin CPR
- b. provide fluids to restore blood volume
- c. both a and b
- d. neither a nor b

5. Hypovolemic shock results in

- a. cool, clammy skin
- b. confusion
- c. weakness
- d. all of the above

6. Respond to hypovolemic shock by

- a. contacting EMS
- b. controlling any external bleeding
- c. providing fluids to replenish blood volume
- d. all of the above
- e. a and b only

CHAPTER 7 REVIEW QUESTIONS

1. Marine life injuries can occur as a result of

- a. accidental touching
- b. poor situational awareness
- c. perceived threats to the marine life
- d. all of the above

2. Dive practices that can help minimise the risk of marine life injuries include

- a. practising good buoyancy control
- b. maintaining good situational awareness
- c. avoiding handling or feeding marine life
- d. streamlining yourself and your equipment
- e. all of the above



Section 6 - Accident Management Preparation

1. **Essential equipment to have available at every dive site includes**
 - a. emergency oxygen unit
 - b. first aid kit
 - c. emergency assistance plan
 - d. all of the above
2. **Emergency assistance plans should include**
 - a. local resources and emergency phone numbers
 - b. communication equipment
 - c. method of documenting information about injured divers and first aid provided
 - d. location of the nearest hyperbaric chamber
 - e. all of the above
 - f. a, b, and c only
3. **Hyperbaric chambers will always be available to treat injured divers**
 - a. True
 - b. False



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