

Standard First Aid & Safety



INTRODUCTION TO EMERGENCY CARE

Lesson 1



Learning Outcomes (1 of 2)

- Recognize the significance of injuries and medical emergencies.
- Define first aid.
- Describe basic life support.
- Identify legal considerations when providing emergency care.

Learning Outcomes (2 of 2)

- Provide examples of conditions when emergency medical services (EMS) should be called.
- Identify questions a dispatcher is likely to ask when you call 9-1-1.
- Describe steps you can take to prevent disease transmission during first aid.



Lesson 1 Overview

- Knowing What to do Matters
- Basic Life Support
- Emergency Care and the Law
- Recognizing an Emergency
- Taking Action
- Staying Safe from Disease



Knowing What to do Matters

- Can save lives and reduce consequences of injuries and medical emergencies.
- First aid is the immediate care provided to an ill or injured victim.
- Know when to call 911
- Know what care to give immediately
- Know what continued care to provide.



Basic Life Support Skills

- Clearing airway obstruction
- Cardiopulmonary Resuscitation (CPR)
- Automated External Defibrillation (AED)



Emergency Care & the Law

- Good Samaritan Laws
 - Protection for providers acting in good faith
- Duty to Act
 - Job defined requirement to respond
- Consent
 - Actual or implied acceptance to receive care
- Abandonment
 - Leaving without ensuring continued proper care
- Negligence
 - Failure to follow reasonable care standard



Recognizing an Emergency

- Smoke/fire
- Screaming
- Screeching tires
- Sounds of collision
- Collapsing structure
- Downed electrical wires
- Strong / Unusual odors
- Victim collapsing

Taking Action

- Factors that keep people from acting:
 - Assuming others will act
 - Fear of making a mistake / lawsuit
 - Fear of disease transmission
 - Uncertainty about the care to provide or need to call for help



When to Call for Medical Help (1 of 3)

- 9-1-1 is the number in most areas in America.
- Can you identify examples of when you would call 9-1-1 for medical care?



When to Call for Medical Help (2 of 3)

- Call 9-1-1 for any of these:
 - Loss of consciousness
 - Difficulty breathing
 - Seizure
 - Chest or abdominal pain/pressure
 - Serious bleeding
 - Serious burns
 - Vomiting blood
 - Serious head, neck, back injury
 - Stroke
 - Broken bones

When to Call for Medical Help (3 of 3)

- The dispatcher often asks:
 - Your name and phone number
 - Location of the victim
 - What happened
 - How many people need help
 - Victim's condition
 - What care is being provided



Staying Safe From Disease

- Though your risk is low, following Standard Precautions further protects against exposure to any bodily fluids.



Specific Diseases of Concern

- Bloodborne Transmission
 - Hepatitis B
 - Hepatitis C
 - Human Immunodeficiency Virus (HIV)
- Airborne Transmission
 - Tuberculosis
 - Measles



Standard Precautions

- Measures put in place to reduce the risk of disease transmission:
 - Hand washing
 - Engineering controls
 - Work practice controls
 - Personal Protective Equipment (PPE)



Personal Protective Equipment

- PPE helps responders maintain an effective barrier during care and includes:
 - Medical exam gloves
 - Breathing devices
 - Eyewear (goggles, glasses with shields)
 - Gowns
 - Antiseptic solution



Safety During First Aid (1 of 2)

- Use barriers to avoid blood
- Use breathing masks if available
- Do not eat or drink while rendering care
- Avoid touching your mouth, nose, or eyes while rendering care



Safety During First Aid (2 of 2)

- Wash thoroughly after care
- Do not touch items soiled with bodily fluids
- Clean surfaces properly with a mixture of 1 part bleach and 9 parts water
- Dispose of all soiled items properly.



Handling an Exposure

- If an exposure occurs:
 - Clean skin thoroughly
 - Flush eyes if needed
 - Document the event
 - Report the event to your job supervisor
 - Follow your company's exposure control plan



Discussion (1 of 2)

- Can you provide examples of emergency situations?
- Can you list some conditions that would require a call to 9-1-1?
- What are some basic legal considerations that apply to emergency care?



Discussion (2 of 2)

- Can you name several diseases that pose a risk of transmission during first aid?
- What precautions can you take to help prevent disease transmission during first aid?



ASSESSING THE SCENE AND THE VICTIM

Lesson 2



Learning Outcomes

- Identify dangers at the scene of an emergency.
- Describe the purpose of the primary check when assessing a victim.
- Describe the purpose of the secondary check when assessing a victim.
- Demonstrate how to assess a responsive and unresponsive victim using the primary and secondary check.



Lesson 2 Overview

- Scene Check
- Primary Check
- Secondary Check



Scene Check

- Unsafe scenes can include:
 - Traffic
 - Fire/Smoke
 - Downed electrical wires
 - Unsafe structures
 - Chemical spills / Poisonous gas
 - Active assailant



Primary Check

- A check for immediate life threats
 - Responsiveness
 - Breathing
 - Heartbeat
 - Severe bleeding



Primary Check Steps

- Check responsiveness
 - Tap and shout
- Call 9-1-1 if needed
- Check breathing
 - Look and listen
- Check for severe bleeding



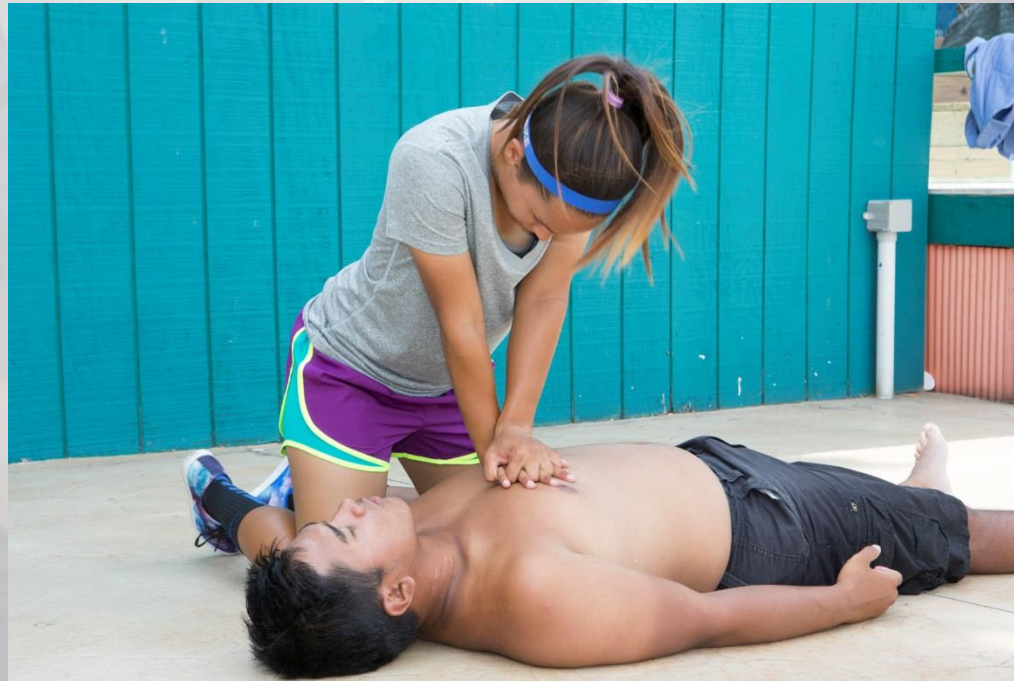
If Unresponsive and Vomiting

- Position the victim on the side
 - Keeps the airway clear



If Unresponsive and Not Breathing

- Provide CPR



Secondary Check

- Only done once life threatening problems are resolved
- Two parts:
 - Gather information about the victim's condition.
 - Physical exam for conditions that could need care or become more serious if left uncared for.

Gathering Information

- Use SAMPLE to gather information
 - Signs and symptoms
 - Allergies
 - Medications
 - Past medical history
 - Last intake
 - Events leading up to the problem

Physical Exam

- Use DOTS
 - Deformity
 - Open wound
 - Tenderness
 - Swelling
- Complete head – to – toe check when uncertain of all potential problems

Checking Head – to - Toe



Physical Exam

- Consider skin condition (temperature and moisture).
- Look for medical identification bracelet that could help determine the problem.



Discussion (1 of 2)

- Can you describe situations that would make a scene unsafe to provide care?
- What is the purpose of the primary check?
- How do you conduct a primary check?
- When is the secondary check performed?



Discussion (2 of 2)

- What are the steps of the secondary check?
- What is the difference between a sign and a symptom?
- What do the mnemonics SAMPLE and DOTS stand for?



WOUNDS AND BLEEDING CONTROL

Lesson 3



Learning Outcomes (1 of 2)

- Recognize soft tissue injuries that commonly occur in home, workplace, and recreation settings.
- Describe examples of open and closed wounds.
- Describe how to care for a wound that involves an impaled object or amputation.
- Recognize external and internal bleeding.



Learning Outcomes (2 of 2)

- Describe how to provide care for internal bleeding.
- Explain how to recognize and care for an infected wound.
- Demonstrate how to provide care for a victim who has external bleeding.



Lesson 3 Overview

- Types of Bleeding
- Open Wounds
- Dressings and Bandages
- Care for External Bleeding
- Infected Wounds
- Closed Wounds
- Care for Internal Bleeding



Types of Bleeding

- 3 types of bleeding:
 - Capillary (minor)
 - Venous (steady)
 - Arterial (spurting)



Open Wounds

- Abrasion (scrape)
- Incision (smooth edge cut)
- Laceration (jagged edge cut)
- Puncture
- Avulsion (tearing away)
- Amputation (removal)
- Impaled object (embedded)



Dressings and Bandages

- Dressings
 - Gauze pads
 - Cover an open wound
- Bandages
 - Roller gauze
 - Holds dressing in place
 - Maintains pressure



Causes of Breathing Problems

- Airway obstruction
- Inhaling smoke or other chemicals
- Asthma
- Lung infections
- Drowning / Suffocation
- Chest trauma
- Narcotic overdose
- Electrocutation
- Heart attack / cardiac arrest

Care for External Bleeding

- Follow “Standard Precautions”
- Clean and cover shallow wounds
- For deeper wounds:
 - Cover with dressing
 - Apply direct pressure & pressure bandage
 - Seek medical care
 - Call 9-1-1 for severe or uncontrolled bleeding

Bandaging a Wound

- Apply dressing & pressure
- Apply pressure bandage



Tourniquet

- Used to save life from severe blood loss
- Commercial device or improvised device
- Apply band securely
- Turn windlass until bleeding stops
- Secure windlass



Hemostatic Gauze

- Better than regular gauze to control bleeding
- Helps blood clot fast
- Apply to the wound
- Bandage in place



Impaled Object

- Come in different shapes and sizes
- Care
 - Hold object still
 - Stabilize with bulky bandage
 - Call 9-1-1



Amputation

- Stop bleeding
- Recover object
- Keep object clean and dry, and cool if possible
- Call 9-1-1



Infected Wounds

- Signs and symptoms:
 - Warm, red, painful, swollen
 - Pus discharge
 - Foul odor
- Care
 - moist, warm compress
 - Clean thoroughly
 - Antibiotic ointment
 - Medical care



Simple Closed Wounds

- Internal bleeding (bruised & tender)
- Use RICE mnemonic for injured limbs
 - Rest
 - Ice
 - Compression
 - Elevation



Serious Closed Wounds

- Internal bleeding involving organs
 - Coughing blood
 - Vomiting blood
 - Bloody or black stool
- Care
 - Call 9-1-1
 - Have person rest in most comfortable position. Often with knees bent.



Discussion (1 of 2)

- Can you describe the three types of bleeding?
- Can you describe seven open wounds?
- Can you describe how to care for a victim with external bleeding?



Discussion (2 of 2)

- What are several signs and symptoms of an infected wound?
- What are the signs and symptoms of internal bleeding?
- How should you care for a victim of internal bleeding?



BURNS

Lesson 4



Learning Outcomes

- Identify the three types of burns and provide examples of each.
- Determine the depth and extent of a burn.
- Recognize when to seek medical care for burns.
- Describe how to care for heat, chemical, and electrical burns.



Lesson 4 Overview

- Types of Burns
- Burn Classifications
- Assessing the Extent of Burns
- Caring for Burns



Types of Burns

- Thermal
- Chemical
- Electrical
- Radiation



Burn Classifications

- Degrees
 - 1st degree (Superficial)
 - Red coloration
 - Outer layers of the skin
 - 2nd degree (Partial thickness)
 - Blisters
 - Deeper layers of skin
 - 3rd degree (Full thickness)
 - Charring / leathery look
 - All layers of the skin and underlying fat.
 - Nerves, blood vessels, and muscles can be affected.



Extent of Burns

- Rule of the Hand
 - Quick approximation of extent of injury
 - Victim's hand = 1% total surface area



Burn Care

- Stop the burning process
 - Water
- Assess extent of the injury
- Provide additional care
 - 1st degree – skin moisturizer
 - 2nd degree – Loosely cover blisters
 - 3rd degree – Moist dressing; cover loosely; call 9-1-1



Chemical Burn Care (1 of 2)

- Flush the chemical from the skin with large amounts of running water for 20 minutes, or until EMS personnel arrive
- If the chemical is a dry powder and no water is available, brush the powder from the skin
- If your job involves chemicals, follow your Material Safety Data Sheets (MSDS)



Chemical Burn Care (2 of 2)

- Chemicals in the eyes
 - Hold affected eye open
 - Close unaffected eye
 - Flush continuously
 - Call 9-1-1



Electrical Burn Care

- Disconnect power source
- Check responsiveness and breathing, and provide CPR/AED if needed
- Cover any wounds with dry, nonstick gauze pads and bandage loosely
- Call 9-1-1



Discussion (1 of 2)

- Can you describe the four types of burns?
- Can you differentiate the three classifications of burns?
- Can you describe how to determine the extent of a burn?



Discussion (2 of 2)

- What are the general steps of burn care?
- How should you care for a victim suffering a thermal burn, chemical burn, or electrical burn?



HEAD, SPINE, PELVIC INJURIES

Lesson 5



Learning Outcomes

- Describe how to recognize head, spinal, pelvic and hip injuries.
- Identify signs of concussion.
- Describe how to care for head injuries including injuries to the skull, eyes, nose, cheeks, and mouth.
- Describe how to care for spinal injuries.
- Describe how to care for pelvic and hip injuries.



Lesson 5 Overview

- Head Injuries
- Spinal Injuries
- Pelvic and Hip Injuries



Head Injuries

- Injuries to the skull and face
 - Involve external or internal bleeding
 - Possible skull fracture
 - Injury can affect the brain



Recognizing Skull Fracture

- Signs and symptoms
 - Loss of consciousness
 - Pain
 - Deformity of the skull
 - Clear or bloody fluid from the ears or nose
 - Heavy bleeding
 - Exposed brain matter
 - Penetrating injury from gunshot or other significant force



Care for Skull Fracture

- Sterile dressing on wound
- Apply pressure along the edges of the dressing, not over weak area of the skull
- Restrict movement of the victim's head
- Call 9-1-1



Recognizing Concussion

- Signs and symptoms
 - Loss of consciousness
 - Loss of memory
 - Headache, dizziness
 - Nausea
 - vision problems
 - balance problems
 - Ringing in the ears



Concussion Care

- Initial Care
 - Positioning the victim on his or her back
 - Restricting movement of the head and neck
 - verifying no additional injuries
 - Call 9-1-1 if needed



Scalp Injury

- Can appear more serious than it is
- Apply dressing and bandage
- Rest on back with head and shoulders elevated
- Call 9-1-1 for severe or uncontrolled bleeding



Nosebleed Care

- Sit and lean forward
- Pinch nostrils tight near face



Eye Injuries

- Impaled object
 - Hold an impaled object still
 - Call 9-1-1
- Blow to the eye
 - Apply a cold pack
- Eyelid cut
 - Apply pressure
- Eyeball out of socket
 - Cover eyeball with moist sterile dressing.
Place paper cup over eye
 - Call 9-1-1



Knocked Out Tooth Care

- Stop bleeding
- Reinsert tooth if possible
- Preserve tooth
 - Hanks Balanced Salt Solution
 - Coconut water
 - Milk
 - Saltwater solution
 - Victim's saliva
- Get to a Dentist promptly



Recognizing Spinal Injury

- Signs and symptoms of spinal injuries:
 - Loss of consciousness
 - Neck or back pain or tenderness
 - Neck deformity
 - Limb weakness, numbness, or tingling



Spinal Injury Care

- Restrict movement of the head and neck
- Call 9-1-1



Pelvic and Hip Injuries (1 of 2)

- Pelvic fractures can have severe bleeding.
- Hip dislocation can occur if the head of the femur is displaced out of the joint.
-



Pelvic and Hip Injuries (2 of 2)

- Signs and symptoms of pelvic and hip injuries
 - Inability to stand or walk
 - Hip or groin pain or tenderness
 - Loss of feeling in the injured limb
 - Knee drawn toward the chest and thigh rotated inward, or the leg extended and rotated outward.
 - Shock
- Care involves limiting movement and calling 9-1-1.

Discussion (1 of 2)

- How should you care for a skull fracture?
- What are the signs and symptoms of a concussion?
- How should you care for loses objects or chemicals in the eyes?
- Can you describe how to care for eye injuries from blows and penetrating injuries?



Discussion (2 of 2)

- How should you care for penetrating cheek injuries?
- How should you care for a victim with a nosebleed?
- Can you explain how to care for a victim who has just lost a permanent tooth?
- What are the signs and symptoms of possible spinal injury?
- What is spinal motion restriction?



CHEST AND ABDOMEN INJURIES

Lesson 6



Learning Outcomes

- Recognize the signs and symptoms of chest and abdomen injuries.
- Identify when to seek medical care for chest and abdomen injuries.
- Describe how to care for open and closed injuries to the chest and abdomen.



Lesson 6 Overview

- Chest Injuries
- Abdomen Injuries
- Impaled Objects



Recognizing Rib Fracture

- Rib fractures can involve an individual rib or multiple ribs.
- A flail chest is when multiple ribs in the same area are each broken in multiple places
- Signs and symptoms
 - Chest pain / tenderness, especially when breathing or coughing
 - Difficulty breathing, including the inability to take a deep breath



Rib Fracture Care

- Place the victim in the most comfortable position for breathing and pain relief.
 - Often a seated position.
- Hold folded towel, blanket, or pillow against the injured side
- Call 9-1-1



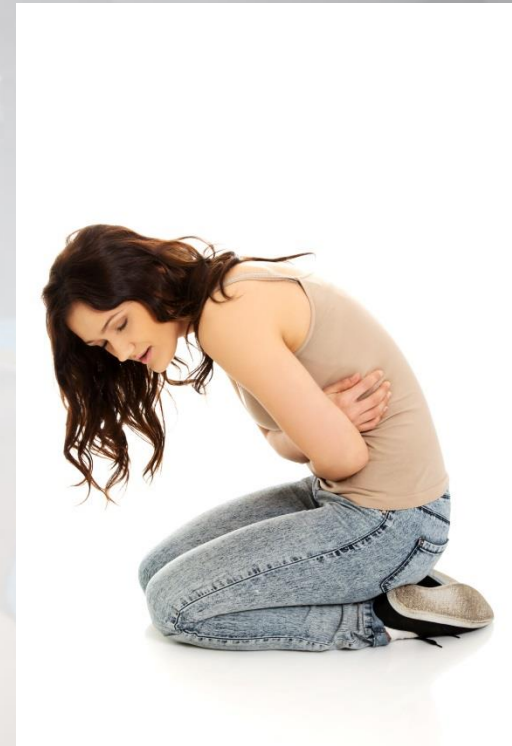
Open Chest Injury Care

- To care for open chest injuries:
 - Control any significant bleeding present
 - If you hear a sucking sound, it is a sucking chest wound. If it has little bleeding, it is acceptable to leave this exposed.
 - If significant bleeding is present, control bleeding with direct pressure.



Closed Abdomen Injuries (1 of 2)

- Signs and symptoms
 - Bruising
 - Painful
 - Tender or tight areas of the abdomen



Closed Abdomen Injuries (2 of 2)

- Care
 - Place the victim in a comfortable position (often on the back or side, with the knees bent)
 - Care for shock
 - Seek medical care / Call 9-1-1



Open Abdomen Injuries

- Care
 - Place the victim on his or her back, with the knees bent
 - Gently cover the protruding organs with a moist, sterile dressing. Do not try to reinsert the organs
 - Care for shock
 - Call 9-1-1



Impaled Objects

- Care for an impaled object in the chest or abdomen as you would elsewhere on the body
 - Hold it still
 - Call 9-1-1



Discussion (1 of 2)

- Can you identify signs and symptoms of rib fractures?
- Can you differentiate between a flail chest and sucking chest wound?
- Can you describe how to care for closed chest injuries such as a rib fracture?



Discussion (2 of 2)

- How should you care for a victim experiencing a sucking chest wound?
- How should you care for a victim with an open abdomen wound?
- What are the general steps of care for an impaled object in the chest or abdomen?



MUSCLE, BONE, JOINT INJURIES

Lesson 7



Learning Outcomes

- Recognize the signs and symptoms of muscle, bone, and joint injuries.
- Describe how to care for muscle injuries, joint injuries, and open and closed fractures.
- Demonstrate how to splint a fractured limb.

Lesson 7 Overview

- Muscle Injuries
- Bone Injuries
- Joint Injuries



Muscle Injuries

- 3 common muscle injuries:
 - Strain - overstretched or partially torn muscle
 - Contusion – bruise from direct blow
 - Cramp – uncontrolled, painful muscle spasm
- Care
 - Use RICE: Rest – Ice – Compression – Elevation



Types of Bone Injuries

- Bones can be bruised or broken (fracture)
- Closed fracture
 - Most common
- Open fracture
 - Bone can extend through the skin



Recognizing Bone Injuries

- Signs and symptoms of a fracture
 - Inability to use the injured area
 - Hearing the bone snap
 - Grating sensation
 - DOTS – Deformity, Open Wound, Tenderness, Swelling



Bone Injury Care

- Splinting
 - Prevents further damage to muscles, nerves, and blood vessels.



Bone Injury Care (2 of 2)

- 3 types of splints
 - Anatomic (Self) Splint- Secures the injured part to an uninjured part of the body
 - Soft splint – Restricts movement with bulky material
 - Rigid splint – Secures the part to a hard object



Joint Injuries (1 of 2)

- Involve shoulders, elbows, knees, ankles, and fingers/toes
- Sprains
 - Stretching or tearing of ligaments at the joint.
- Dislocations
 - Bone end coming out of the joint socket.



Joint Injuries (2 of 2)

- Signs and symptoms similar to fractures
- Care
 - RICE
 - Splinting if the area is dislocated.



Discussion

- Can you describe the signs and symptoms of muscle, bone, and joint injuries?
- Can you differentiate between closed and open fractures?
- How should you care for a victim with a muscle injury?
- How should you care for a victim with a fracture or dislocation?



SHOCK

Lesson 8



Learning Outcomes

- Describe types of shock.
- Recognize the signs and symptoms of shock.
- Describe how to care for a victim in shock.
- Identify signs and symptoms of allergic reaction and anaphylactic shock
- Describe how to care for allergic reaction and anaphylactic shock



Lesson 8 Overview

- Types of Shock
- Recognizing Shock
- Care for Shock
- Allergic Reaction and Anaphylactic Shock



Types of Shock (1 of 2)

- Anaphylactic shock
 - severe allergic reaction
- Cardiogenic shock
 - Heart damage so severe it cannot pump effectively
- Hypovolemic shock
 - Severe blood loss from external or internal bleeding

Types of Shock (2 of 2)

- Metabolic shock
 - When fluids and electrolytes are impaired (diabetic emergency)
- Neurogenic shock
 - Injury to the nervous system (spinal cord, brain)
- Psychogenic shock
 - Overwhelming emotional factors; fainting
- Septic shock
 - Acute infection



Recognizing Shock

- Altered consciousness / confusion
- Anxiety and restlessness
- Pale, bluish, cool, moist skin
- Nausea / vomiting
- Rapid breathing and heart rate.
- In neurogenic shock the heart rate can be slow, and the skin warm, dry, and flushed

Shock Care

- Position the victim on his or her back whenever possible
 - Seated of difficulty breathing
- Keep the victim warm.
- Call 9-1-1



Causes of Allergic Reactions

- Food
- Insect bites and stings
- Medications
- Poisonous plants
- Latex
- Dyes from medical procedures



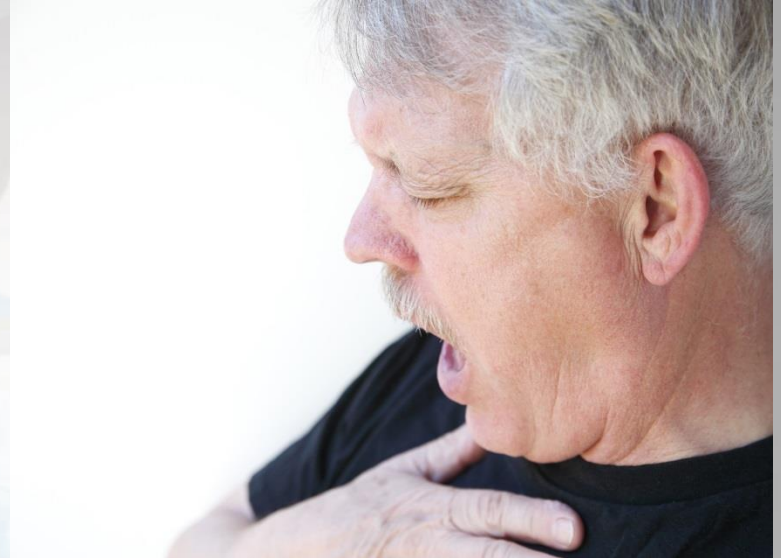
Recognizing Allergic Reactions

- Rash
- Itching
- Red, watery eyes
- Runny nose
- Sneezing



Recognizing Anaphylaxis

- Difficulty breathing
- Difficulty swallowing
- Swelling of the face, throat, tongue
- Rapid heart beat
- Dizziness / loss of consciousness



Care for Mild Allergic Reactions

- Provide antihistamine (e.g. Benadryl)



Anaphylaxis Care

- Place victim in most comfortable breathing position (e.g. seated)
- Remove any restrictive clothing
- Call 9-1-1
- Assist the victim with his/her prescribed epinephrine auto injector if available

Preparing to Use an Epinephrine Auto-Injector

- Confirm that medication is –
 - For the victim
 - Not expired
 - Not discolored



Using an Epinephrine Auto-Injector

- Hold device in center
- Remove the safety cap
- Secure the victim's leg
- Place needle end near the outer thigh
- Press the device firmly and hold for 10 seconds
- Massage the injected area
- Give used device to EMS



Discussion

- Can you describe several types of shock ?
- What are the signs and symptoms of shock?
- How should you care for a victim experiencing shock?
- What are the signs and symptoms of allergic reaction?
- How should you care for allergic reactions? (Pg x)
- How do you administer an epinephrine auto injector for anaphylaxis?



MEDICAL EMERGENCIES

Lesson 9



Learning Outcomes

- Recognize the signs of symptoms associated with medical emergencies including breathing problems, chest discomfort, diabetic conditions, fainting, pregnancy complications, seizure, and stroke.
- Describe how to care for medical emergencies that include breathing problems, chest discomfort, diabetic conditions, fainting, pregnancy complications, seizure, and stroke.



Lesson 9 Overview

- Breathing Problems
- Chest Discomfort
- Diabetic Conditions
- Fainting
- Pregnancy Complications
- Seizure
- Stroke



Breathing Problems (1 of 3)

- Causes include:
 - respiratory infections
 - Chest injury
 - Head injury
 - Heart attack
 - Asthma



Breathing Problems (2 of 3)

- Signs and symptoms include:
 - Struggling to breath
 - Unusually fast or slow breathing
 - Extensive coughing
 - Noisy breathing, including gasping and wheezing
 - Bluish lips
 - Need to pause while speaking
 - Fatigue



Breathing Problems (3 of 3)

- Care for breathing problems includes:
 - Position of comfort (often seated upright)
 - Assist victim with his / her prescribed inhaler if needed
 - Call 9-1-1 if the condition does not improve
 - If hyperventilating from anxiety, attempt to calm the victim.



Chest Discomfort

- Can occur for a variety of reasons:
 - Injury to the chest
 - Lung infections
 - Heart attack



Heart Attack Care

- Call 9-1-1
- Rest in the most comfortable position
- Assist with any prescribed heart medication, such as nitroglycerin
- Provide 1 regular or 2 low dose aspirin



Diabetic Emergencies

- Imbalance between blood sugar and insulin levels can result in one of two types of diabetic emergencies:
 - Hypoglycemia - low blood sugar level and high insulin level
 - Hyperglycemia - high blood sugar level and low insulin level



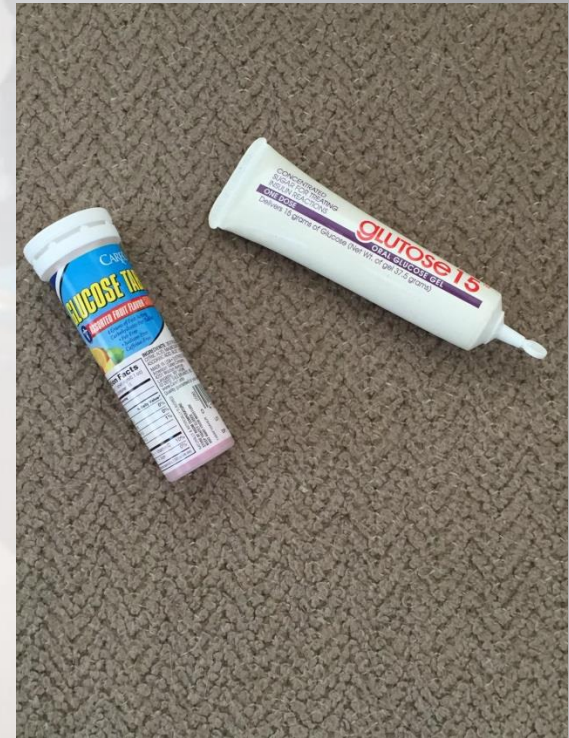
Recognizing Diabetic Emergencies

- Diminished level of consciousness
- Weakness
- Hunger or thirst
- Vision difficulty
- Breathing difficulty
- Fruity breath odor



Care for Diabetic Emergencies

- Rest in a comfortable position.
- Provide sugar
 - Glucose tablets or gel.
 - Sugary candy
 - Fruit juice
- Call 9-1-1 if the condition does not improve



Fainting

- Causes:
 - Hyperventilation (rapid breathing)
 - Hypoglycemia (low blood sugar)
 - Heart problems
 - Heat /Dehydration
 - Blood loss
 - Psychological stress



Fainting Care

- Assist the victim to lie down
- Check responsiveness and breathing
- Recovery position if vomiting
- Loosen any restrictive clothing
- Call 9-1-1 if the condition does not improve shortly



Recognizing Pregnancy Complications

- Abdominal pain / Severe cramps
- Heavy vaginal bleeding
- Severe nausea and vomiting
- Significant decline in the activity of the baby
- Persistent, severe headache
- Visual disturbances



Care for Pregnancy Complications

- Call 9-1-1
- For vaginal bleeding or severe abdominal pain or cramps, place the victim on the left side
- For vaginal bleeding, have the victim place a sanitary napkin or other sterile dressing over the opening of the vagina



Seizures

- Sudden, involuntary changes in a person's brain cell activity due to a massive electrical charge
- Significant muscle rigidity and convulsions
- Appearance of day dreaming

Seizure Care

- Move any items away that might cause injury
- Roll the victim onto one side to help keep the airway clear
- Protect the victim's head
- Call 9-1-1



Stroke

- A stroke occurs when blood flow to part of the brain is disrupted due to blocked or ruptured arteries in the brain.



Recognizing Stroke

- Weakness or numbness on one side of the body
- Vision problems
- Problems speaking
- Dizziness or loss of balance
- Confusion
- Sudden severe headache



Stroke Care

- Call 9-1-1
- Have the victim rest in the most comfortable position, often on the back with head and shoulders elevated
- If vomiting occurs, roll the victim onto his or her side (recovery position) to keep the airway clear



Discussion (1 of 2)

- Can you describe causes of chest discomfort?
- How would you care for a victim having a heart attack?
- What are the signs and symptoms of breathing problems?
- How should you care for a victim having difficulty breathing?
- What are the two diabetic conditions and how do you provide care for these?



Discussion (2 of 2)

- What signs and symptoms suggest pregnancy complications that require immediate medical care?
- How would you care for a victim experiencing a seizure?
- What are the signs and symptoms of stroke?
- How should you care for a stroke victim?



POISONING

Lesson 10



Learning Outcomes (1 of 2)

- Describe the 4 methods by which someone can be poisoned.
- Identify information that is helpful to provide to Poison Centers.
- Recognize signs and symptoms of different poisoning emergencies.



Learning Outcomes (2 of 2)

- Describe how to provide care for specific poisons resulting from alcohol or other drug misuse, chemicals, insect bites and stings, human and animal bites, snakebite, scorpion sting, marine animal bites and stings, poisonous plants.
- Discuss the purpose of Material Safety Data Sheets (MSDS) relative to poisoning prevention and care.



Lesson 10 Overview

- Poisoning
- Ingested Poisons
- Alcohol Intoxication and Other Drug Misuse
- Inhaled Poisons
- Absorbed Poisons
- Injected Poisons



Poisoning_(1 of 3)

- A poison can enter the body in 4 ways:
 - Ingested
 - Inhaled
 - Injected
 - Absorbed



Poisoning (2 of 3)

- The Poison Help line at [800-222-1222](tel:800-222-1222) is available 24 hours a day, 7 days a week
- Answer these questions when you call:
 - What poison was the victim exposed to?
 - How much poison was the victim exposed to?
 - How was the victim poisoned?
 - What is the age and approximate weight of the victim?
 - What care has been provided?



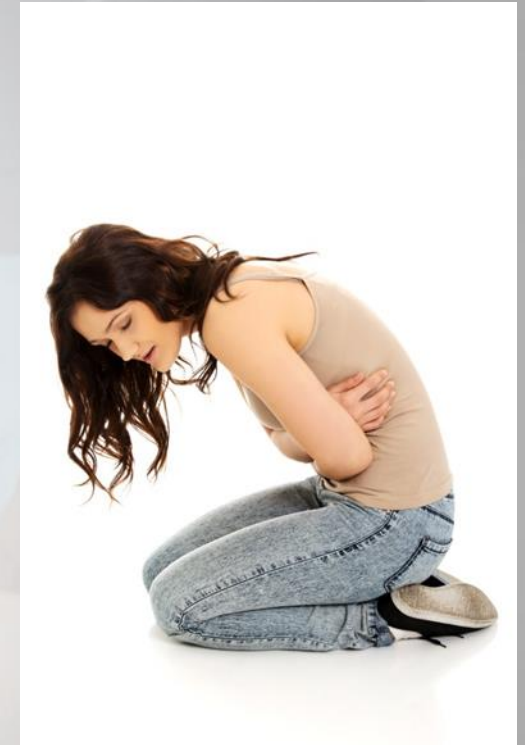
Common Ingested Poisons

- Pain medications such as acetaminophen (Tylenol) and ibuprofen (Advil or Motrin)
- Home cleaning products
- Personal care products
- Laundry detergents
- Pesticides
- Plants
- Alcohol and other drugs



Recognizing Ingested Poisons

- Signs and symptoms of ingested poisons can include:
 - Nausea and vomiting
 - Abdominal cramps and pain
 - Burns of the mouth, lips, tongue, and throat
 - Diminished consciousness
 - Seizures



Ingested Poison Care

- Call the Poison Help line if the victim is responsive.
- Advice may include:
 - diluting the poison with milk or water, or inducing vomiting.
 - Providing activated charcoal to absorb the poison
- Call 9-1-1 if the victim is unresponsive or having difficulty breathing.



Alcohol Intoxication and Other Drug Misuse

- Signs and symptoms of alcohol intoxication include:
 - Odor of alcohol
 - Slurred / slow / incomprehensible speech
 - Confusion
 - Dizziness / loss of consciousness
 - Slowed actions
 - Staggering gait / collapsing
 - Nausea or vomiting



Care for Alcohol Intoxication

- Call the Poison Help line for advice
- Have victim the sleep on his/her side
- Monitor the victim
- Call 9-1-1 if the victim is unresponsive



Opioid Overdose (1 of 2)

- Legally prescribed pain medications such as morphine, hydrocodone, and oxycodone
- Illegal substances such as heroin
- Epidemic level in the USA



Opioid Overdose (2 of 2)

- Public education efforts underway to Prevent overdoses
- Train anyone to assist in the use of the medication naloxone to reverse opioid overdose



Nalozone

- Public education efforts underway to prevent overdoses
- Train anyone to assist in the use of the medication naloxone to reverse opioid overdose



Nalozone Delivery

- Given through an auto-injector similar to the one used to deliver epinephrine for anaphylaxis
- Given through a nasal spray device



Inhaled Poisons

- Inhaled poisons include:
 - Carbon monoxide
 - Insecticides
 - Gasoline
 - Paint thinner
 - Insect repellent



Recognizing Inhaled Poisons

- Signs and symptoms associated with inhaled poisons include:
 - Headache
 - Dizziness
 - Altered consciousness
 - Breathing difficulty



Care for Inhaled Poisons

- Remove the victim from a toxic environment if it is safe to enter
- Check responsiveness and breathing
- Provide CPR if unresponsive and not breathing normally
- Call 9-1-1



Absorbed Poisons

- Poisons absorbed through the skin
 - Chemicals such as cleaning solutions
 - Poisonous plants



Recognizing Absorbed Poisons

- Signs and symptoms include:
 - Dermatitis (swollen red skin with an itchy rash)
 - Blisters
 - Difficulty breathing, if the smoke from burning poison ivy has been inhaled



Care for Poisonous Plants

- Upon initial contact:
 - Wash the affected area. Apply a commercial product (Cortaid, Technu, Zanfel)
- Once dermatitis is present:
 - Apply a corticosteroid cream, calamine lotion, or commercial product (Zanfel)
 - Use oral antihistamine
 - Soak in a cool-water bath containing an oatmeal-based bath product (Aveeno)

Care for Absorbed Chemical Poisons

- Consult your Material Safety Data Sheets (MSDS) for poisoning resulting from worksite chemicals



Injected Poisons

- Can result from:
 - Needle injection
 - Most commonly from bites or stings
 - Insects
 - Ticks
 - Spiders
 - Scorpions
 - Marine life
 - Animals
 - Humans



Care for Bee Stings

- Remove the stinger quickly
- Wash the affected area
- Apply a cold pack
- Provide an OTC pain reliever
- Use topical hydrocortisone cream or an oral antihistamine
- Watch for signs of allergic reaction
- Call 9-1-1 at the first sign of anaphylaxis



Care for Spider Bites

- Wash the site
- Disinfect with alcohol
- Apply ice to control swelling and reduce pain.
- Provide OTC pain medication
- Call 9-1-1 or go to your local hospital emergency department



Care for Tick Bite

- Use tweezers to lift gently and hold until the tick releases.
- Wash the area
- Disinfect with an alcohol swab.
- Apply an ice pack for swelling or pain.
- Apply hydrocortisone cream for itching.
- Watch for any rashes, flulike symptoms, or joint discomfort over the next 30 days



Scorpion Stings

- Scorpion stings are painful, and can occasionally be fatal, particularly to children.
- To care for a scorpion sting:
 - Wash the site
 - Apply a cold pack
 - Seek medical care.



Care for Human and Animal Bites

- Wash the wound
- Cover with a clean dressing
- Apply pressure to stop bleeding
- Seek medical attention for any deep bites
- Antibiotics may be prescribed to prevent infection



Recognizing Jellyfish Stings

- Redness
- Swelling
- Burning pain
- Allergic reactions can occur



Care for Jellyfish Stings

- Most stings can be cared for by:
 - Rinsing the area initially with sea water
 - Carefully removing any remaining tentacles
 - Applying vinegar
 - Taking a pain reliever
 - Calling 9-1-1 if anaphylaxis occurs



Stingray Injuries

- A stingray flicks its barbed tail, often inflicting wounds to the feet and ankles of victims
- To care for injuries cause by stingrays:
 - Immerse the injured part in hot water to neutralize the venom.
 - Flush the injured area to help remove any debris and toxin.
 - Seek medical care



Snake Bite

- There are 4 venomous snakes native to the US:
- Rattlesnake
- Copperhead
- Water moccasin
- Coral snake



Snake Bite Care

- Get the victim away from the snake.
- Limit movement of the victim
- Wash the wound
- Splint any bitten limb
- Call 9-1-1



Discussion (1 of 2)

- Can you describe the 4 ways a person can become poisoned?
- What information is helpful to provide to Poison Centers?
- What are the signs and symptoms of ingested poisons?
- What are the signs and symptoms of inhaled poisons?



Discussion (2 of 2)

- What is the purpose of Material Safety Data Sheets (MSDS)?
- How would you provide care for exposure to poisonous plants?
- Can you describe the care for injected poisons including insect bites and stings, human and animal bites, scorpion sting, marine animal bites and stings, and snakebite?



TEMPERATURE EXTREMES

Lesson 11



Learning Outcomes

- Recognize the signs and symptoms of heat cramps, heat exhaustion, and heat stroke.
- Describe how to care for heat cramps, heat exhaustion, and heat stroke.
- Recognize the signs and symptoms of hypothermia and frostbite.
- Describe how to care for hypothermia and frostbite.



Lesson 11 Overview

- Heat Emergencies
 - Heat cramps
 - Heat exhaustion
 - Heat stroke
- Cold Emergencies
 - Hypothermia
 - Frostbite



Heat Emergencies

- There are three heat emergencies:
 - Heat cramps
 - Heat exhaustion
 - Heat stroke



Heat Cramps

- The least serious of the three heat emergencies
- Painful muscle cramps, often in the legs.
- Care involves:
 - Stopping any strenuous activity
 - Stretching the affected muscle
 - Provide water or an electrolyte drink



Heat Exhaustion

- Can occur when heavy sweating results in a loss of salt and water.
- Signs and symptoms include:
 - Heavy sweating
 - Fatigue
 - Thirst
 - Weakness
 - Dizziness
 - Nausea and vomiting
 - Headache



Care for Heat Exhaustion

- Have the victim rest in a cool environment
- Provide water or commercial sports drink if the victim is not nauseated
- Cool the victim by spraying with water or applying water soaked towels
- Call 9-1-1 if the condition does not improve



Heat Stroke

- Occurs when the sweat mechanism of the body fails and the body becomes dangerously overheated.
- Signs and symptoms include:
 - Very high temperature (104°F or higher).
 - Hot, flushed (red) skin
 - Little or no sweating
 - Confusion
 - Seizures
 - Loss of consciousness
 - Cardiac arrest



Care for Heat Stroke

- Rapidly cool the victim by any means possible.
- Call 9-1-1
- Begin CPR if the victim is unresponsive and not breathing (or only occasionally gasping)



Cold Emergencies

- There are two cold emergencies:
 - Hypothermia
 - Frostbite



Hypothermia

- Abnormally low body temperature
- Signs and symptoms include:
 - Shivering
 - Confusion
 - Drowsiness
 - Exhaustion
 - Cold skin, even under clothing



Care for Hypothermia

- Warm the victim gradually
- Replace any cold / wet clothing
- Add insulation such as a blanket
- If alert, provide a sugary, non-alcoholic beverage to help increase the body temperature
- Call 9-1-1 if the victim's condition does not improve



Frostbite

- Occurs when skin freezes and ice crystals cause damage at the cellular level
- Commonly affects areas that are exposed or under protected
 - Ears
 - Nose
 - Fingers and toes



Recognizing Frostbite

- Skin appears white, gray, and waxy
- Blisters can form
- Swelling can occur
- Affected part is cold, painful, or becomes numb



Care for Frostbite

- Remove the victim from the cold
- Remove any cold or wet clothing
- Remove any jewelry from the affected area, such as the hand
- Call 9-1-1
- Frostbitten parts are best cared for when rewarmed under a controlled environment in a hospital



Discussion (1 of 2)

- Can you describe the 3 types of heat emergencies?
- Can you describe the 2 types of cold emergencies?
- What are the signs and symptoms of heat exhaustion and heat stroke?
- How should you care for a victim experiencing any of the three types of heat emergencies?



Discussion (2 of 2)

- How would you differentiate hypothermia from frostbite?
- How do you care for hypothermia?
- How do you care for frostbite?



RESCUES, TRIAGE, & EMERGENCY MOVES

Lesson 12



Learning Outcomes

- Describe how to safely rescue a victim from dangerous environments involving confined space, hazardous materials, electricity, smoke, fire, water, and ice.
- Describe how to prioritize care when there are more victims than rescuers.
- Describe how to safely move victims in emergency situations.



Lesson 12 Overview

- Rescues
- Triage
- Emergency Moves



Rescue Safety Guidelines

- Do not put yourself at risk trying to rescue a victim
- Do not attempt any rescue technique for which you have not been trained
- Try to make the surrounding area safe for others



Confined Space (1 of 2)

- An area that has restricted openings and an atmosphere that may be dangerous to those who enter
 - Wells
 - Mines
 - Caves
 - Manholes
 - Storage tanks
 - Farm silos



Confined Space (2 of 2)

- If someone is in trouble within a confined space:
 - Call 9-1-1
 - Enter only if you have the proper respiratory protective equipment and the training to do so safely
 - Remove the victim from the area
 - Provide care whenever it is safe



Hazardous Materials

- Flammable
- Explosive
- Corrosive
- Radioactive
- Biological



Hazardous Materials Safety

- Remain at a distance approximately half a mile away, and upwind from any hazardous materials incident
- Attempt to keep others away from the danger as well
- Call 9-1-1



Motor Vehicle Crash Safety

- Make sure 9-1-1 has been called
- Park your vehicle well off the roadway, with hazard flashers on
- Do not attempt to enter an unstable vehicle
- Turn off the ignition of the damaged vehicle
- Place roadside reflectors or flares at least 250 feet from the crash site.
- Only attempt to remove a victim if there is an immediate life threat, such as a vehicle fire, or if the victim needs CPR



Fire

- Shout to clear the area
- If the fire is small and you have a fire extinguisher:
 - Aim at the base of the flames
 - Expel the contents of the extinguisher in a sweeping motion



Triage

- Determining care priority of victims based on the severity of their conditions
- Needed when rescuers are few and victims are many
- The goal is to save those that can be saved



Triage

- Determining care priority of victims based on the severity of their conditions
- Needed when rescuers are few and victims are many
- Move quickly to assess all
- The goal is to save those that can be saved



Triage Categories

- Requiring immediate care (Red)
- Delayed care for up to an hour (Yellow)
- Delayed care for up to 3 hours (Green)
- Injuries incompatible with life (Black)



Emergency Moves

**ONLY DONE IF THE SCENE IS UNSAFE
FOR YOU AND THE VICTIM !**



Emergency Move Considerations

- Factors to consider:
 - Condition of the victim, such as back or neck injury
 - Size and weight of the victim
 - Your size and strength
 - The surface upon which you must move the victim
 - Whether other bystanders can assist



Types of Emergency Moves

- Drags
 - Unresponsive victim
- Assists
 - Human crutch to support a walking victim
- Carries
 - Single or multiple rescuer



Discussion (1 of 2)

- Can you describe the 3 types of heat emergencies?
- Can you describe the 2 types of cold emergencies?
- What are the signs and symptoms of heat exhaustion and heat stroke?
- How should you care for a victim experiencing any of the three types of heat emergencies?



Discussion (2 of 2)

- How would you differentiate hypothermia from frostbite?
- How do you care for hypothermia?
- How do you care for frostbite?

