Workplace First Aid
What is First Aid?

- First aid is emergency care provided for injury or sudden illness before emergency medical treatment is available.
- The first aid provider in the workplace is someone who is trained in the delivery of initial medical emergency procedures, using a limited amount of equipment to perform a primary assessment and intervention while awaiting arrival of EMS.
First Aid is VITAL!

- In the U.S., injuries may represent the single most important public health problem.
- Estimates of work related fatalities may exceed 10,000 workers per year.
- There are approximately 35 million lost work days each year due to nonfatal injuries.
The total cost of occupational injuries is estimated to be 47 BILLION dollars per year.

Prompt, properly administered first aid can mean the difference between life and death, rapid vs prolonged recovery, temporary vs permanent disability

First Aid is VITAL!
Most states have enacted Good Samaritan Laws to encourage people to help others in emergency situations. These laws give legal protection to people who provide emergency care to ill or injured persons. They require that the Good Samaritan use common sense and a reasonable level of skill not to exceed the scope of the individual’s training.
The Good Samaritan Law is defined as:

Where no prior contractual relationship exists, any person who in good faith renders or attempts to render emergency care consisting of artificial respiration, restoration of breathing, or preventing or retarding the loss of blood, or aiding or restoring heart action or circulation of blood to the victim or victims of an accident or emergency, wherever required, shall not be liable for any civil damages as a result of any acts or omissions by such person in rendering the emergency care.
Common Terms

- Implied Consent
- EMS
- Definitive Care
- Basic, Intermediate, Paramedic
- Cot, stretcher, etc
- Ambulance slang

- “itis”
- “hypo”
- “hyper”
- CHF and COPD
Scene Safety

- Is the scene safe?
- How many victims are there?
- What is the mechanism of injury?

This is the most important part of first aid. You can’t help anyone if you get hurt!
Patient Assessment

- D – Danger
- R – Responsiveness
- A – Airway
- B – Breathing
- C – Circulation
- D - Defibrillator
Patient Assessment

- Keep the patient calm
- **Ask about:**
  - Medical history
  - Medicines they’re taking
  - Allergies
- Look for MEDIC ALERT tags
A - Airway

- When you ask the patient if they’re okay, the way they respond should indicate if they have a patent (open) airway.
  - Indicators:
    - Short, choppy answers
    - Gasping
    - No Answer

- Look, Listen, and Feel
  - Look for:
    - Chest rise and fall
    - Visible respiratory effort
    - Cyanosis
  - Listen for:
    - Wheezing, gurgling, or any other sounds
  - Feel for:
    - Air leaving mouth and nose
A - Airway

- If patient is unconscious and trauma is not suspected, perform a head-tilt, chin-lift.
- If patient is unconscious and trauma is suspected, perform a jaw-thrust maneuver.
B - Breathing

- The normal respiratory rate for an adult is **12-20 breaths per minute**
- Are the breaths short?
- Are the breaths rapid (tachypnea)?
- Are the breaths slow (bradypnea)?
- Are the breaths absent?
B- Breathing

- You may be asked to assist the patient in breathing either by a trained CPR provider or an EMT.
- You may use:
  - Mouth Barrier
  - Bag Valve Mask (BVM)
Bag Valve Mask (BVM)

- Used when respirations are absent, too slow, or patient is in respiratory distress and is beginning to tire.
- Use E-C technique to maintain a good seal
- When you take a breath, give a breath
C - Circulation

- Is there a pulse? Check the carotid and radial pulse points
- Is the pulse rapid or slow?
- Is the pulse weak or strong?
- The normal pulse rate is 60-100 beats/min
- To count pulse, count number of pulses in 30 seconds then multiply the number by two.
Pulse Points

- Carotid Pulse is found on the neck
- Radial Pulse is found on the wrist
- Pedal Pulse is found on top of the foot
D - Defibrillator

- Be trained in how to use a defibrillator or find someone who is.
- Everyone should obtain their CPR certification...you never know when you might need it!
Trauma Assessment

- CALL 911
- Perform a Rapid Trauma Assessment
- DRABCD
- Airway is always first priority.
  
  NO AIRWAY NO PATIENT

- Control any bleeding
- Splint if necessary
Types of Trauma

- Abrasions
- Cuts
- Lacerations
More Trauma

- Puncture
- Avulsion
- Amputation
Bleeding Control

- ALWAYS HAVE ON YOUR BSI
- Cover the wound with sterile gauze and apply pressure
- If the wound bleeds through the gauze, add more.
- If wound continues to bleed, elevate the extremity above the heart level
- If wound continues to bleed, apply pressure at nearest pulse point.
- A tourniquet should only be used as a life or death last resort.
Bandaging
Splinting
Shoulder Sling

Figure 4-25. Application of sling and cravat to immobilize a fractured or dislocated shoulder illustrated A thru D.
Shock

Shock is a life-threatening condition that occurs when the body is not getting enough blood flow. This can damage multiple organs. Shock requires immediate medical treatment and can get worse very rapidly.
Shock Signs/Symptoms

- Anxiety or agitation
- Confusion/ Altered Mental Status
- Pale, cool, clammy skin
- Bluish lips and/or fingernails
- Dizziness, light-headedness, or faintness
- Profuse sweating, moist skin
- Rapid but weak pulse
- Shallow breathing
- Chest pain
- Unconsciousness
Treatment

- Call 911 for immediate medical help.
- Check the person's airways, breathing, and circulation. If necessary, begin rescue breathing and CPR.
- Even if the person is able to breathe on his or her own, continue to check rate of breathing at least every 5 minutes until help arrives.
- If the person is conscious and does NOT have an injury to the head, leg, neck, or spine, place the person in the shock position. Lay the person on the back and elevate the legs about 12 inches. Do NOT elevate the head. If raising the legs will cause pain or potential harm, leave the person lying flat.
- Give appropriate first aid for any wounds, injuries, or illnesses.
- Keep the person warm and comfortable. Loosen tight clothing.
Burns

- First, Second, or Third degree
- Cover the burn with a sterile gauze bandage. Don't use fluffy cotton, or other material that may get lint in the wound. Wrap the gauze loosely to avoid putting pressure on burned skin. Bandaging keeps air off the burn, reduces pain and protects blistered skin.
Burn Cautions

- Don't use ice. Putting ice directly on a burn can cause a burn victim's body to become too cold and cause further damage to the wound.
- Don't apply butter or ointments to the burn. This could cause infection.
- Don't break blisters. Broken blisters are more vulnerable to infection.
Poisoning

- **CALL 911**
- Check DRABCD
- Know what chemicals are in the workplace and where the MSDS is located
- Determine route of exposure: ingested, inhaled, absorbed, or injected
- Obtain baseline vitals and pertinent patient history (ie: allergies, meds, etc)
- Keep the patient calm and provide comfort measures
Heat Exhaustion

**SYMPTOMS:**
- Dizziness
- Heavy Sweating
- Nausea
- Headache
- Tiredness
- Weakness
- Muscle Cramps
- Paleness

**TREATMENT**
- An air-conditioned environment
- Cool, non-alcoholic beverages
- Rest
- Cool shower, bath, or sponge bath
- Lightweight clothing
Heat Stroke

- Heatstroke is the most severe of the heat-related problems, often resulting from exercise or heavy work in hot environments combined with inadequate fluid intake.

- Young children, older adults, people who are obese and people born with an impaired ability to sweat are at high risk of heatstroke. Other risk factors include dehydration, alcohol use, cardiovascular disease and certain medications.
Heat Stroke

- The main sign of heatstroke is a markedly elevated body temperature — generally greater than 104°F (40°C) — with changes in mental status ranging from personality changes to confusion and coma. Skin may be hot and dry — although if heatstroke is caused by exertion, the skin may be moist.
Heat Stroke

**SYMPTOMS**
- Rapid heartbeat
- Rapid and shallow breathing
- Elevated or lowered blood pressure
- Cessation of sweating
- Irritability, confusion or unconsciousness
- Feeling dizzy or lightheaded
- Headache
- Nausea
- Fainting, which may be the first sign in older adults

**TREATMENT**
- Move the person out of the sun and into a shady or air-conditioned space.
- Call 911 or emergency medical help.
- Cool the person by covering him or her with damp sheets or by spraying with cool water. Direct air onto the person with a fan or newspaper.
- Have the person drink cool water or other nonalcoholic beverage without caffeine, if he or she is able.
Hypothermia

**SYMPTOMS**
- Shivering
- Slurred speech
- Abnormally slow breathing
- Cold, pale skin
- Loss of coordination
- Fatigue, lethargy or apathy
- Confusion or memory loss

SYMPTOMS USUALLY HAVE A SLOW ONSET
Hypothermia

**TREATMENT**

- Call 911 or emergency medical assistance. While waiting for help to arrive, monitor the person's breathing. If breathing stops or seems dangerously slow or shallow, begin cardiopulmonary resuscitation (CPR) immediately.
- Move the person out of the cold.
- Remove wet clothing. Replace wet things with a warm, dry covering.
- Don't apply direct heat. Don't use hot water, a heating pad or a heating lamp to warm the victim. Instead, apply warm compresses to the center of the body — head, neck, chest wall and groin. Don't attempt to warm the arms and legs. Heat applied to the arms and legs forces cold blood back toward the heart, lungs and brain, causing the core body temperature to drop. This can be fatal.
- Don't give the person alcohol. Offer warm nonalcoholic drinks, unless the person is vomiting.
- Don't massage or rub the person.
Frost Bite Injuries

- When exposed to very cold temperatures, skin and underlying tissues may freeze, resulting in frostbite. The areas most likely to be affected by frostbite are your hands, feet, nose and ears.

- Gradual warming is the key to treating frostbite. Do not thaw affected areas if there’s a chance of re-freezing. See a physician immediately!
Chest Pain

**SYMPTOMS**
- Chest Pain or Discomfort
- Upper body discomfort in one or both arms, the back, neck, jaw, or stomach
- Shortness of breath may often occur with or before chest discomfort
- Nausea (feeling sick to your stomach), vomiting, lightheadedness or fainting, or breaking out in a cold sweat

**TREATMENT**
- CALL 911
- Keep the patient calm
- Have the patient chew a regular strength aspirin
- Have the patient take nitroglycerin if prescribed (do not take anyone else’s nitro)
Sudden weakness or numbness in your face, arm or leg on one side of your body
Sudden dimness, blurring or loss of vision, particularly in one eye
Loss of speech, trouble talking or understanding speech
Sudden, severe headache — a bolt out of the blue — with no apparent cause
Unexplained dizziness, unsteadiness or a sudden fall, especially if accompanied by any of the other signs or symptoms
If patient receives definitive care within 3 hours of symptom onset, damage could be reversed or kept to a minimum! RECORD THE TIME SYMPTOMS STARTED
Breathing Problems

- Try to determine the cause
- Keep patient calm
- If patient is conscious, move to a comfortable sitting position and loosen tight clothing
- CALL 911
- If unconscious, make sure airway is clear. If pulse is felt, administer rescue breaths at one every 4-5 seconds. If no pulse is felt, administer CPR.
- If patient is choking, perform the Heimlich maneuver
Choking

Universal sign for choking

Place fist above navel while grasping fist with other hand. Leaning over a chair or countertop, drive your fist towards yourself with an upward thrust.

Cover your fist with your other hand and thrust up and in with sufficient force to lift the victim off his feet.
Allergic Reactions

- **Allergy** - Hypersensitivity disorder of the immune system. Usually harmless and characterized by mild swelling, itching, hives, etc.

- **Anaphylaxis** - Acute life threatening allergic reaction. Common triggers include insect bites or stings, foods, medication, and latex rubber.
Anaphylaxis

**SYMPTOMS**
- Shortness of breath, wheezing, or stridor
- Generalized hives, itching, rash, swelling of lips, tongue, and/or throat
- Abdominal pain, diarrhea, vomiting
- Light headedness, loss of consciousness
- IMPENDING FEELING OF DOOM
Anaphylaxis

**TREATMENT**

- **CALL 911**
- Ask the person if he or she is carrying an epinephrine autoinjector (Epi-Pen)
- If the person says he or she needs to use an autoinjector, ask whether you should help inject the medication. This is usually done by pressing the autoinjector against the person's thigh.
- Have the person lie still on his or her back.
- Loosen tight clothing and cover the person with a blanket. Don't give the person anything to drink.
- If there's vomiting or bleeding from the mouth, turn the person on his or her side to prevent choking.
- If there are no signs of breathing, coughing or movement, begin CPR.
Universal Precautions