

Basic First Aid Tutorial

Overview:

1-Introduction

2-Emergency Response

3-Bleeding, Shock, & Soft-Tissue Injuries

4-Bone, Joint, & Muscle Injuries

5-Medical Emergencies

6-Heat & Cold-Related Illness/Injury

I. Introduction

a. Good Samaritan Principle/Law

- i. Generally protect you from liability as long as you act in good faith, do only what you are skilled/certified in doing, and are reasonably careful
- ii. If you decide to help, you must not leave until someone more trained takes over

b. Consent

- i. An adult must agree or give permission for care.
- ii. Implied consent is assumed when an adult is unresponsive, with a child, or with a person of diminished mental capacity like Alzheimer's disease

c. Universal Precautions

- i. A way to limit the spread of disease by preventing contact with blood and bodily fluids with personal protective equipment (goggles, gloves, rescue barrier mask)
- ii. To observe UP means you always assume victim's bodily fluid is infected
- iii. Use an alcohol-based cleanser to clean your exposed skin, if not available use soap/water
- iv. Proper removal of contaminated gloves: peel down edge at wrists so it is folding over exposed glove making it right side in with contaminants trapped on the inside

II. Emergency Response

a. Do not move a victim unless you have to

- i. Drag by back of underneath shirt or armpits with neck supported by your forearms, moving them in the direction of the long axis of the body to protect the spine
 1. Never twist or pull sideways
 2. Use your back not your legs to lift
 3. Consider victim's weight & need help

b. Action Steps (ABC's)

- i. Airway – position victim face up on hard flat surface then open airway by head tilt chin lift
- ii. Breathing – look, listen, and feel for breath on your face and visible chest rise 5-10 sec.
 1. No breath – begin CPR with 2 breaths
 2. Breath – check rest of injuries
- iii. Circulation – look for movement, blood pumping out of a wound....if found control bleeding with direct pressure, look for normal color (use exposed wrist to feel head for temperature), continue ABC's
- iv. **Recovery Positions** – Do not move unless you have to but these are used if you must leave a victim alone to get help so he doesn't aspirate on his vomit, to maintain normal body temperature (may need to roll to get blanket beneath them) or for responsive victim's who's wound's are being managed and are just waiting on EMS
 1. Uninjured victim – place one arm out on floor on the side/palm up/elbow bent, roll top arm & leg crossed over to floor
 2. Injured victim (HAINES)=high arm in endangered spine position – place one arm out above head on ground, roll victim over so head/neck are supported by arm above him, other arm should be crossed over body onto floor, legs both can be bent up slightly

III. Bleeding, Shock, and Soft-Tissue Injuries

- a. **External bleeding** – observe universal precautions, alert 911 & begin ABC's if needed, begin first aid
 - i. Apply direct pressure
 - ii. Rip/cut away clothing
 - iii. Place absorbent pad, never remove only add
 - iv. Apply pressure bandage by wrapping an elastic or rubber bandage/glove around wound, not so tight you can't get a finger under
 - v. Can do pressure points and elevation
 - vi. Treat for shock
- b. **Internal bleeding** – (point tenderness, blood pools to surface with discoloration/hardness, blood from nose/ears/mouth/eyes/ears/vagina/rectum) observe universal precautions, alert 911, begin ABC's if needed, treat for shock
- c. **Shock** - victim appears restless, cool moist skin, pale or bluish color (lips), shivering, intense thirst, nausea, vomiting, shallow breathing, below normal body temp
 - i. Rest on ground flat on back
 - ii. Maintain open airway (ABC's)
 - iii. Cover victim with blanket
 - iv. 911
- d. **Burns**
 - i. Major (3rd Degree- dissolved flesh)
 1. Cut away clothing, do not remove stuck clothing
 2. Liquid chemical flush with water, dry chemical brush off with protection
 3. Remove jewelry
 4. Separate fingers/toes with dry sterile dressing
 5. Lightly cover with dry sterile dressing
 6. Attend to ABC's/911, treat for shock
 - ii. Minor (1st – discoloration, 2nd – blisters)
 1. Cut away clothing, do not remove stuck clothing

2. Cool heat burns with cool water for 20-30 minutes or until pain is relieved
3. Cover with dry sterile dressing
4. Protect burn from friction
5. If a 2nd degree burn covers more than 2-3" or located on hands, feet, face, groin, buttocks, or major joint treat like a major burn
6. Watch for signs of infection, call doctor
- iii. DO NOT: break blisters, apply ointments/creams, apply ice

IV. Bone, Joint, and Muscle Injuries

a. Closed fracture, strain, sprain, dislocation

- i. Place hands above & below break to immobilize (make padded splint/sling)
- ii. Ice pack
- iii. Remove jewelry

b. Open fracture

- i. Cover with sterile dressing
- ii. Apply gentle pressure around exposed bone
- iii. 911

c. DO NOT: move victim, ask victim to move injury, attempt to straighten deformity or push bone back under skin, allow victim to bear weight on injury, remove shoes or helmet from injury

d. **Spinal injury** - assumed with major trauma like auto accidents, diving, or lightning strike/force of any kind

- i. Signs: confused, pain, numbness, burning, tingling, loss of sensation in hands/fingers/feet/toes, weakness, paralysis, loss of bladder control
- ii. 911
- iii. ABC's, HAINES or flat on back position
- iv. Place hands on both sides of head
- v. Keep head, neck and spine in line or as found
- vi. DO NOT: remove helmet, ask victim to move or test for pain response

V. Medical Emergencies

- a. **Asthma** – disease which the air passages in the lungs become narrower from swelling and extra mucus; signs are coughing, wheezing, trouble breathing and asthma is worse with the cold and during exercise
 - i. Inhaler – remove cap, shake, press down & breathe in slowly 3-5 sec., hold breath 10 sec.
 - ii. Nebulizer (smaller children)- place machine/air compressor on sturdy surface, put liquid medicine into nebulizer cup (screws on bottom of mask), reassemble mask to top of nebulizer cup, place mask over child's face, turn on machine, take slow breaths holding each for 2-3 sec., continue until liquid is gone about 10 min.
 - iii. If not better in 15-20 minutes, DO NOT give more medication, call 911
- b. **Allergic Reaction/Anaphylaxis** – sudden, severe allergic reaction that involves whole body including blocked airway
 - i. Epinephrine/EpiPen auto-injector – prescribed medication for single use must be used by removing cap, holding perpendicular to body, hitting into side of upper thigh for a count of 10, remove from skin and discard, call 911 (if victim is unable, you must do for him even if unconscious)
- c. **Poisoning**
 - i. Swallowed
 1. Call poison control 1800-222-1222
 2. Know what, how much, when, weight
 3. DO NOT give anything to eat or drink
 - ii. Skin contact
 1. Remove clothing, rinse skin with water
 2. ABC's, 911
 3. For poisoness bites/stings
 - a. Major - remove jewelry/constrictive clothing, wrap extremity tightly to constrict blood vessels to slow poison, 911

- b. Minor – ice pack, use home remedies like Benedryl, vinegar, tobacco paste, toothpaste, meat tenderizer over sting
 - iii. Inhaled
 - 1. Get victim to fresh air
 - 2. ABC's, 911 (DO NOT perform rescue breaths on victim of inhaled substance)

VI. Heat and Cold-Related Illness/Injury

- a. **Heat Exhaustion** – still conscious, heavy sweating
 - i. Get into cool place
 - ii. Loosen/remove clothing
 - iii. Give Gatoraide or water
 - iv. Apply wet cloths, fan, & cold compresses near arteries
- b. **Heat Stroke** – unconscious
 - i. 911
 - ii. Water all over body
 - iii. Ice pack all arteries (neck, groin, armpits, wrists)
 - iv. Place in recovery position to protect airway
- c. **Frostbite** – cold, hard, numb, pins/needles sensation, throbbing
 - i. 911
 - ii. Place sterile dressing between toes/fingers
 - iii. Wrap area with sterile dressing
 - iv. Move to warmer area
 - v. Remove constrictive jewelry, clothing
 - vi. DO NOT rewarm a frozen body part if refreezing may occur
- d. **Hypothermia** – shivering, weakness, altered mental status, unconscious
 - i. 911
 - ii. Get out of wind, water
 - iii. Remove wet clothing, get into dry/cover
 - iv. Place near heat source and place warm water in contact with skin (NOT hot, NOT fully emerged)
 - v. DO NOT rub/massage area, give alcohol