

# First Aid 101

By Jaime Kriner PA-C

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Jeremy Kriner RN-BSN CCRN CEN PHRN  
NREMT-P

# Knowledge is Primary

- Serious injury at U.M. ARMY is very rare.
- Many of the medical concerns listed in this training have never actually occurred in our programs.
- It is our belief that knowledge is the best form of prevention

# Objectives of First Aid Training

- Identify the most common illness/injuries sustained at U.M. ARMY
- Understand how these can be prevented
- Establish strategies of how to deal with illness or injury at U.M. ARMY and educate adult volunteers in prevention and safety

# Insects

- Insects are one of the most common issues dealt with at U.M. ARMY every year.
- Insect bites/stings can be prevented with use of common sense and awareness of surroundings.
- Stings/bites can cause local (small area around site) or systemic (entire body) reactions that range from mild to fatal
- Insect stings are one of the most common causes for fatal allergic reactions (anaphylaxis).

# Prevention of Bites/Stings

- Be aware of surroundings
- Watch for signs of nests/hives
- Clean up after yourself (yellow jackets are attracted to food)
- Don't provoke
- Avoid strong odors, lotions, and perfumes

# Types of reactions to insects

## Local

- Most common type of reaction
- Symptoms include swelling, redness, and pain around the affected area
- Reaction often dissipates within a few hours



# Treatment

## Local Reactions

- Clean carefully with soap and water
- Apply ice
- Remove stinger if present
- May need antihistamine like Benadryl
- May need pain relief - Tylenol/Motrin (Parents must give permission before administering medications to youth - consult with the Camp Director)

# Types of reactions to insects

## **Systemic (entire body)**

- Usually occur in people who have had previous exposure to insect venom
- Can occur at any age
- Most people have no warning and have tolerated other stings in the past with little or no reaction.



# Types of reactions to insects

## Anaphylaxis

- Severe entire body allergic reaction
- Can be life threatening if not treated quickly
- Signs and symptoms include:
  - Flushing
  - Tongue swelling
  - Upper airway swelling
  - Shortness of breath
  - Wheezing
  - Low blood pressure

# Treatment

## Anaphylaxis

- DON'T PANIC!!!
- Call 911
- Use EpiPen if person has one
- Keep person calm
- Remove stinger if present
- Do not give medications by mouth if swelling is present in mouth or neck!

# Ticks

- Lyme disease is the most common tick-borne disease in the United States and Europe.
- Tick size is important
  - Ticks smaller in size are more likely to carry Lyme Disease
  - Larger ticks are less likely to carry disease



# Ticks

- For a tick crawling on skin, remove it promptly
- If tick has burrowed into the skin, follow these easy steps:
  - Use a set of tweezers, paper or cloth to protect fingers
  - Pull straight up gently but firmly, using steady pressure.
  - Do not jerk or twist

# Tick removal con't

- Do not squeeze, crush, or puncture body of the tick.
- Disinfect skin thoroughly and wash hands
- After removal, observe site for signs of increasing redness - if this occurs, further evaluation may be needed
- Usually ticks need two to three days of attachment before transmission of disease

# Heat and Sun

- Heat emergencies can come upon us quickly
- Heat exhaustion/stroke is very preventable
- Sunburns are also extremely preventable

# Prevention of Heat and Sun Related Medical Issues

- Drink plenty of fluids when working in hot weather (water and sports drinks are best)
- Take frequent breaks in shaded or indoor areas
- Use sunscreen and reapply frequently
- Wear appropriate clothing including hats and sunglasses
- Care for one another watching closely for symptoms.



# Heat Exhaustion

## Signs and Symptoms:

- Severe thirst
- Muscle weakness
- Nausea, sometimes vomiting
- Fast, shallow breathing
- Irritability
- Headache
- Increased sweating
- Cool, clammy skin
- Elevation of body temperature, but less than 104 degrees

# Treatment of Heat Exhaustion

- Go inside or into the shade
- Have person lie down, elevate feet slightly
- Spray person with cool water or apply cool wet clothes to skin
- Drink water/sports drinks slowly (small frequent sips)
- Monitor skin temperature and alertness
- Notify Safety person and Camp Director

# Heat Stroke

## Signs and Symptoms:

- Severe, throbbing headache
- Weakness, dizziness, or confusion
- Difficulty breathing
- Decreased responsiveness or loss of consciousness
- May not be sweating
- Flushed, hot, dry skin
- Elevation of body temperature to 104 degrees

# Treatment of Heatstroke

- Remain calm
- Remove person from Heat
- Call 911
- Call Camp Director



# Sunburn

- Multiple degrees of severity
- Result of excessive sun exposure without protection
- Person most susceptible to sunburn:
  - Fair skin
  - Light colored hair
  - History of sunburn with limited exposure to sunlight
  - Use of certain medications

# Sunburn

## First degree

- Redness noted to the skin
- Can range from painless to very painful.

## Second degree

- Again redness noted to skin
- Blisters noted to effected area
- Painful in nature

## Third degree

- Rare with sunburns
- Painless
- Black areas noted in center of burn

# Sunburn

- Prevention is key
  - **Multiple** applications of sunscreen throughout the day (Water proof is best, with SPF 15 or greater)
  - Look for opportunities to be in the shade
  - Wide-brimmed hats, sunglasses, and loose-fitting clothing with long sleeves are the best

# Sunburn Treatment

- No cure to date for sunburns; treatment is concentrated on relief of symptoms
- Moisturizing lotion or aloe vera gel
- Cold compresses or soaks in cool water
- Use of Tylenol/Motrin may also help with pain relief (with permission of parent)



# Dehydration

- Caused by prolonged physical activity without consuming adequate water, especially in a hot humid environment
- Can also be caused by prolonged:
  - Diarrhea
  - Vomiting
  - Fasting

# Signs and Symptoms of Dehydration

## Mild

- Thirst
- Decreased urine output/abnormally dark urine (easiest sign to watch for while at camp)
- Unexplained tiredness
- Irritability
- Lack of tears when crying
- Headaches
- Dry mouth
- Dizziness when standing

# Signs and Symptoms of Dehydration

## Moderate/Severe

- All symptoms from prior slide plus:
  - No urine output
  - Lethargy
  - Extreme sleepiness
  - Seizures
  - Fainting
  - Sunken eyes

# More Signs and Symptoms of Dehydration

- Increased Heart Rate
- Increased rate of breathing
- Headache
- Nausea

# Treatment of Dehydration

- Get out of the heat
- Start drinking water/sports drinks slowly (sports drinks are better due to replenishment of electrolytes)
- For signs of severe dehydration, call 911, then call camp director

# Poisonous plants

- Include Poison ivy, sumac, and oak
- 50% of people will react in nature
- Poison ivy affects all ethnicities and skin types, along with most geographical regions in the United States.
- Common Phrase: “Leaves of three, let them be”

# Identifying plant

- Poison ivy and oak often have three leaflets with flowering branches arising from single stem
- Poison sumac often forms leaflets of five, seven, or more that angle upward toward top of stem



# Common sense on Poisonous plants

- Most important and effective treatment for poison ivy is identification and avoidance of plant
- Protective clothing is useful; remember that sap stays on clothes
- Sap can seep through clothing and can penetrate rubber or latex gloves
- After exposure remove contaminated clothing and gently wash skin with mild soap and water as soon as possible



# Symptoms

- Intense itchiness
- May develop papules or vesicles often arranged in linear or streak-like fashion where plant made contact with skin
- Involvement of face and genitals may cause significant swelling

# Treatment for Poisonous Plant Exposures

- Oatmeal baths
- Cool wet compresses
- Calamine lotion
- Topical astringents (Burow's solution or Domeboro) if weeping blisters
- Zanafel may also be of benefit.
- Bacitracin, topical antihistamines, and anesthetics should be avoided due to allergic potential

# Treatment con't

- Oral antihistamines (Benadryl) may help with itching
- Tylenol or motrin can be used for pain



- All medications must be approved by parent before use
- Consult with the Camp Director

# Last, but certainly not least...

## Trauma

- Encompasses a broad spectrum of injuries
- Could be as simple as a paper cut or as major as losing a limb
- Key is to use common sense and to stay calm
- Always use gloves when dealing with body fluids

# Prevention of Trauma

- Be familiar with and adhere to all safety procedures in the Travel Guide (page 31-34)
- Conduct the required Tool and Safety Training at your home church prior to arrival at camp
- Be proactive to identify and avoid unsafe conditions on the work site
- When in doubt about the safety of a task always err on the side of caution - Don't do it – Ask for help from someone more qualified

# Don't sweat the small stuff

- For small cuts/lacerations, clean wound and apply appropriate sized clean dressing
- For swelling with pain
  - Follow RICE
    - Rest
    - Ice
    - Compress
    - Elevate
  - Tylenol/Motrin can be used for pain

# Larger Wounds

- For heavier bleeding, apply direct pressure with gauze
- Raise extremity above heart
- Have person lie on the ground in the shade

# Largest

- Stay calm
- Have person lie on ground
  - Exception: Falls
    - Do NOT move the person unless they are in imminent danger from their surroundings
- Do not move the person's head or neck
- Apply direct pressure if bleeding is present
  - Do not “peek” to see if the bleeding has stopped
- Call 911, then Camp Director when appropriate



# When do I call an ambulance

- Any situation that is deteriorating rapidly that you are uncomfortable with
- Broken bones
- Bleeding that is pulsatile or which cannot be controlled after holding pressure for 3 minutes
- When someone has fainted
- Respiratory distress
- Any time you feel that you need more help than you have or can get rapidly

# In General

Your Camp Director will help you with the following:

- Identify people that are medically trained
- Know who to call in a time of emergency
- Know how to get to the hospital
- Have a back-up plan in case the adult is the “patient”
- For those who have EpiPens, inhalers, etc. do not forget to take them to the worksite

# Things to Remember

- Common Sense
- Patience
- Observation
- Stay calm

# More Things to Remember

- When treating an illness or injury:
  - If it is getting better, continue what you are doing!
  - If it is getting worse, get advice or help!

# Best First Aid

- Don't panic but don't be foolish.
- Do what you are able to do immediately.
- Use common sense.
- Stay clear-headed.
- Think through the situation, then take action!

# Recommendations

- This brief review does not substitute for an approved CPR/First Aid Course.
- We recommend that you take an approved course through The American Heart Association or The Red Cross in CPR and First Aid if you would like to be officially certified or you desire additional information.

# Thank-you's

- Thank you to Yale-New Haven Hospital
- Thank you to Hospital of Central Connecticut
- Thank you to UpToDate.com
- U.M. ARMY National