

# Chesapeake & Ohio Canal National Historical Park

National Park Service  
U.S. Department of the Interior



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## Billy Goat Trail Steward Training Basic First Aid

Chesapeake & Ohio Canal  
National Historical Park  
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CHOHVIP First Aid Training Center

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## Purpose of this Training

- When encountering a first aid situation, our goal is to ensure that the injured person safely leaves the Park, either through treatment and evacuation by professional EMTs or by getting back to their car with our help, should they agree to it.
- This training is designed to prepare a Billy Goat Trail Steward to deal with minor first aid issues while on the Billy Goat Trail and to determine when the injury/situation requires that communications with 911 be initiated.

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## What this Training Will Cover

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- Patient Assessment
- Patient History & Physical
- How to take heart rate, respiratory rate and determine capillary filling time
- Cleaning and bandaging a wound/abrasion – control of bleeding
- Recognizing and Treating Heat Related Symptoms – heat cramps, heat exhaustion, heat stroke, and hypothermia
- Wrapping a sprained joint; Applying a cold pack, Creating a sling
- Recognizing and treating any form of shock
- Recognizing and treating hypoglycemia in a diabetic
- Recognizing and treating insect and snake bites





## Patient Assessment – General Approach

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- Be aware of your surroundings. Make sure the area is safe before you enter
- When encountering a visitor with a First Aid issue, introduce yourself by name and indicate you are a Park volunteer who is trained in First Aid
- Ask if they would like you to provide assistance with their injury/situation
- If they *consent* to your providing assistance, proceed to assessing the nature and severity of their injury or condition (*implied consent*)
- If the injury/situation is serious, call 911 and inform them of the situation – ask for Montgomery 911 if you get the VA 911
- If the injury/situation is of a nature that you feel comfortable and able to deal with then you may proceed
- Keep the visitor informed of what you are going to do





## Patient Evaluation and Treatment

### Evaluating for and Treating Specific Problems

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- Do not move the visitor with an injury until you are certain that it is required and is safe and appropriate to do so
- Determine if serious bleeding is involved – **control bleeding**
  - Clean and bandage a wound or abrasion – **put on nitrile gloves, control bleeding, cleanse the wound, apply antibiotic ointment, apply dressing then bandage or apply a band aid if it is a small wound or abrasion**
- Do a patient (visitor) assessment
  - airway, breathing, circulation, mental status, exposure, injury or disability
  - **DOTS:** Deformities, Open Injuries, Tenderness, Swelling





## Patient Evaluation and Treatment

### Evaluating for and Treating Specific Problems

(continued)

- Take a patient history
  - **SAMPLE:** Symptoms, Allergies, Medications, Past medical history, Last oral intake, Events leading up to the problem
  - Check for **Medical Alert** bracelet/dog tags/pendant/card on person
- Determine heart rate (pulse rate), respiratory rate & capillary filling time
  - Normal resting heart rate range in adults including seniors – **60 to 100 beats per minute** (slower in well trained athletes – higher in children under 10)
  - Normal resting respiratory rate – **12 to 20 breaths per minute** (20 to 30 breaths per minute in children 1-5 years old)
  - Normal capillary filling time – **less than 2 seconds** (longer than 2 seconds may indicate dehydration and/or shock)

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## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems

(continued)

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- Determine if the visitor is dehydrated, suffering from **heat cramps, heat exhaustion or heat stroke**

### Heat Cramps:

Muscle cramps related to heat exposure, especially when in combination with dehydration, high humidity, and sustained physical activity. This is the least serious of the three heat related syndromes. Signs and symptoms of heat cramps usually include heavy sweating, fatigue, thirst and muscle cramps







## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems

(continued)

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### Treatment of Heat Cramps:

- **have the visitor stop all activity and rest**
- **move the visitor to a cooler place or shade them**
- **help the visitor rehydrate with water or a sports drink**

Prompt treatment usually prevents heat cramps from progressing to heat exhaustion.





## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems

(continued)

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### Heat Exhaustion:

Heat exhaustion is a condition whose symptoms may include heavy sweating and a rapid pulse, a result of the body overheating.

Causes of heat exhaustion include exposure to high temperatures, particularly when combined with high humidity, and strenuous physical activity. Other causes include dehydration, alcohol use, and overdressing in clothes that do not allow sweat to evaporate.

**Without prompt treatment, heat exhaustion can lead to heatstroke, a life-threatening condition.** Fortunately, heat exhaustion is preventable.





## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems

(continued)

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Signs and symptoms of **heat exhaustion** may develop suddenly or over time, especially with prolonged periods of exercise. Possible heat exhaustion signs and symptoms include:

- **Cool, moist skin with goose bumps when in the heat**
- **Heavy sweating**
- **Faintness – Dizziness - Fatigue**
- **Weak, rapid pulse - Low blood pressure upon standing**
- **Muscle cramps**
- **Nausea**
- **Headache**





## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems

(continued)

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### Treatment of Heat Exhaustion:

If you think a visitor is experiencing heat exhaustion:

- **Have them stop all activity and rest**
- **Move them to a cooler place if possible – shade**
- **Have them lie on their back and elevate feet 6"-12"**
- **Have them drink cool water or sports drinks**

Contact EMS ( call 911 ) if signs or symptoms worsen or if they don't improve.





## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems  
(continued)

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### Heat Stroke:

- Untreated, **heat exhaustion** can lead to **heatstroke**, a life-threatening condition that occurs when the body temperature reaches 104 F (40 C) or higher.
- **Signs and Symptoms of Heat Stroke** include:
  - main symptoms is a high body temperature of 104 F or higher
  - altered mental state or behavior
  - alteration in sweating
  - nausea and vomiting
  - flushed skin
  - rapid breathing
  - racing heart rate
  - headache





## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems

(continued)

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### Heat Stroke:

**Heatstroke requires immediate medical attention** to prevent permanent damage to the brain and other vital organs that can result in death.

**If you suspect that a visitor is suffering from Heat Stroke, immediately call 911 and indicate that you are dealing with a potentially life-threatening heat-related syndrome!**





## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems

(continued)

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### **Heat Stroke: Treatment of Heat Stroke that you can initiate on the BGT**

- Loosen clothing - remove any unnecessary clothing
- Move the visitor to a shady spot if possible or shade if not
- Place them on their back with their legs elevated higher than their heart level to help maintain blood flow to the brain
- Initiate cooling measures - put wet “towels” on their skin; place cold packs or ice, if available, on their body; fan them





## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems

(continued)

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- Determine if the visitor has sustained a possible head injury - 911
  - **Signs and Symptoms of a Head Injury**
    - unconsciousness
    - inability to remember the cause of the injury or events that occurred immediately before
    - confusion and disorientation
    - difficulty remembering new information
    - headache
    - dizziness
    - blurry vision
    - nausea and vomiting







## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems (continued)

- Determine if a fracture is involved – **stabilize the affected limb – do not move**
- Determine if a neck injury may have occurred – **stabilize the neck and do not move**
- Recognize and treat hypothermia – shivering and decreased mental function – **remove wet clothing and warm**
- Stabilize strained or sprained joint – **wrap with elastic bandage or other suitable material - apply cold pack - create a sling if necessary**

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## Patient Evaluation and Treatment

### Evaluating for and Treating Specific Problems (continued)

- Recognize any form of shock and treat
  - **Signs and Symptoms of Shock** - usually two or more of these
    - confusion or lack of alertness
    - loss of consciousness
    - a sudden and ongoing rapid heartbeat
    - sweating
    - pale skin
    - a weak pulse
    - rapid breathing
    - cool hands and feet
    - decreased or no urine output
  - **Treatment of shock by a BGTS – place on back and elevate feet 6 to 12 inches**





## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems

(continued)

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- Recognize and treat hypoglycemia in a diabetic – confusion, weakness, agitation, sweating, tremor, dizziness– **give glucose tablets, glucose gel, hard candy, honey, sports drink with glucose, energy bar if not allergic to peanuts**
- Recognize and treat insect bites – report of sting or bite from patient or observation of bite site – embedded stinger, redness, itching or burning and/or swelling – **remove stinger if present, cleanse bite area (insect stings) and observe patient for signs of anaphylaxis – difficulty breathing, hives – assist using an Epi-pen if patient has one – apply local anesthetic ointment or spray and/or ice or cold pack**





## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems  
(continued)

- Removal of an attached **tick** - grasp the head of the tick as close to the skin as possible with tweezers and pull straight off of skin - avoid squeezing the tick's body to prevent injecting bacteria responsible for Lyme Disease and Rocky Mountain Spotted Fever
- Treat exposure to **poison ivy** - cleanse exposed area with cleansing wipe, hand sanitizer, a specialized product like Technu or soap & water if available - advise visitor to wash affected area thoroughly with soap & water as soon as possible

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## Patient Evaluation and Treatment

Evaluating for and Treating Specific Problems

(continued)

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- Recognize and treat a snake bite – look for a single or double puncture wounds for a Copperhead bite – if intense pain and swelling are present, then the patient has received a significant venom load – **keep the affected body part immobile and below heart level – do NOT apply ice or cold pack, do NOT cut, suction, or use a tourniquet – call 911 and request EMS and/or transport. If the bite has just occurred, consider wrapping the limb. If not, use a pen to mark the borders of the swollen area and write the time. Do this every 10-15 minutes. This helps the ER physician determine whether antivenin is needed.**





## Patient Evaluation and Treatment

Northern Copperhead - venomous



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