

Trails Club of Rossmoor - First Aid Class
Instructors: Lynne Forrette and Pat Kramm

Introduction and overview of evening

Review hike first aid kits for hike leaders and process for checking out and noting items used

Questions at end

Introduction: role of first responder, Stay calm, Assess...assess,

Assign duties, Treat versus 911!

- | | |
|---|-------|
| 1. Sprained Ankle:
ace wrap | Lynne |
| 2. Shoulder/Upper Arm Injury:
triangular bandage | Pat |
| 3. Shock: | Pat |
| 4. Fall/Head Injury: | Lynne |
| 5. Dizzy, Weak, Short of breath: | Lynne |
| 6. Fractured wrist: | Lynne |
| 7. Dirty cut below knee:
kerlix, 4x4, ?ace | Lynne |
| 8. Bee Sting: | Pat |
| 9. Bloody Nose: | Pat |
| 10. Hyperthermia:
HYDRATION ESSENTIAL | Lynne |
| 11. Eye Injury: | Pat |
| 12. Cramps...legs and foot: | Lynne |
| 13. Snake bite: | Pat |

Personal items: Meds, Diabetes, allergies, heart condition, weak joints, Hearing aid batteries, spare contacts/glasses

Questions

How to apply a compression wrap for a sprained ankle.

Instructions



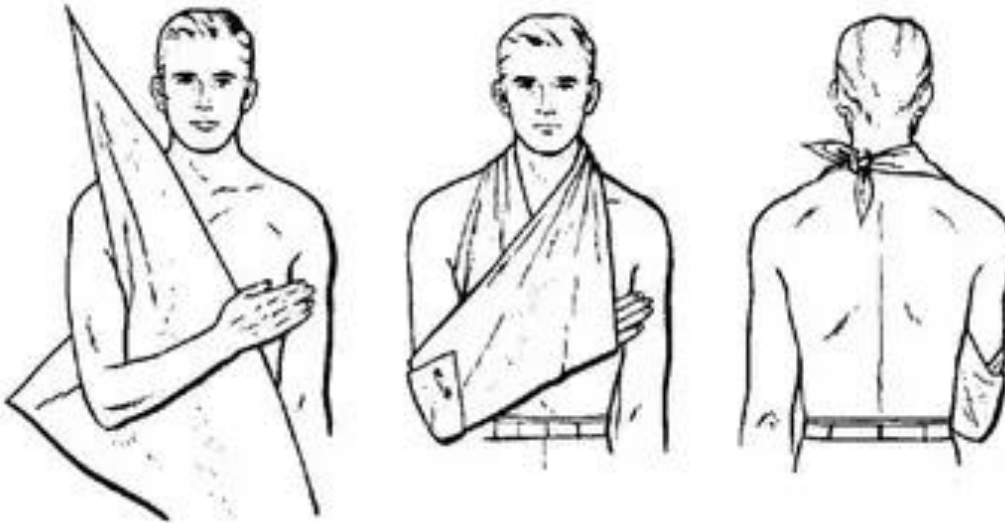
1. Roll up an elastic bandage if it isn't already rolled up. Hold your ankle at about a 90-degree angle.
2. Start where your toes meet the body of your foot. Hold the loose end of the bandage at the side of your foot. Wrap the bandage around the ball of your foot once, keeping it somewhat taut with a light pull.
3. After this, slowly start circling your way around the arch of the foot. Pull the bandage diagonally from the bottom of the toes across the foot's top and circle it around the ankle. Now bring the bandage diagonally across the top of the foot and under the arch in a figure-eight pattern.
4. Continue around the ankle and foot in a figure eight, moving toward the heel on the bottom and toward the calf at the top of the eight.

The wrap should cover the entire foot and end about 3 to 4 inches above the ankle. Most compression wraps are self-fastening or come with clip fasteners. If not, use tape to secure the end. The wrap should be snug but should not cut off circulation to the foot.

Triangular bandages

Triangular bandages can be used as large dressings, as slings to support a limb, or to secure a dressing in place. If you're using a triangular bandage as a sling on an arm, you should:

1. ask the person to hold their arm across their chest and support the arm while you work
2. put the bandage under the arm and around the back of the neck
3. put the other half of the bandage over the arm to meet at the shoulder and tie into a knot
4. tuck the loose ends of the bandage in at the elbow, or use a pin



Shock

Shock is inadequate Capillary tissue perfusion and Oxygenation. Very Complex with different causes and always an EMERGENCY! Call 911 Immediately! For this presentation We will focus on the main 2 forms of shock that could occur while hiking:

HYPOVOLEMIC SHOCK: (Low volume), most frequently caused by bleeding, but also by dehydration.

Important signs of Hypovolemic Shock: Pale and cool skin, confusion

Cause: Hemorrhage-loss of Blood from Fall, Laceration, Trauma

Treatment:

1. CALL 911! Direct pressure to stop bleeding
2. Elevation above heart of affected limb
3. Trendelenburg position (demo) feet above head - contraindicated in possible spinal injury!

Cause: Dehydration-vomiting, diarrhea, sweating, not drinking.

Treatment:

1. water if person is alert, has gag reflex, not vomiting

ANAPHYLACTIC SHOCK: When your body is exposed to a substance that causes a severe reaction.

Important signs of anaphylactic shock: wheezing, difficulty breathing, faster heart rate, nausea, vomiting, dizziness, rash, itching, chest tightness.

Cause: reaction to Drugs, Meds, Insect bites and Stings, foods

Treatment: CALL 911! See info on Bee Stings in handout

Wrist Injury

Here's what to look for to tell if the wrist is broken. You don't have to see all of these, but the more you see, the bigger the chance that the wrist is broken:

- Pain
- Swelling
- Bruising
- Deformity
- Numbness or tingling
- Broken skin with bone visible
- Limited mobility of the wrist

If an accident occurs, make sure the injured person is in a safe location. Check for bleeding and apply pressure to any open wounds until the bleeding stops. If needed, the wound can be rinsed, ideally with sterile water or saline solution. Cover any broken skin with a sterile dressing.

First Aid Procedures Everyone Should Know When Splinting a Wrist

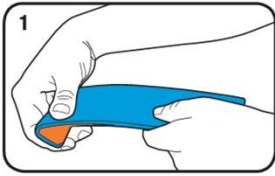
It may be necessary to splint the broken wrist. Before splinting, check the following three things:

1. Check circulation by comparing the color and temperature of the injured wrist against the uninjured wrist.
2. Check sensation by asking the patient which finger you are touching.
3. Check motion by having the patient wiggle his or her fingers.

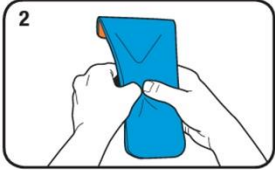
Be sure to immobilize the hand. Any movement of the hand will result in pressure on the wrist. Recheck circulation, sensation, and motion. Once the splint is applied use a sling to immobilize the arm.

Step-by-Step Guide to Splinting a wrist using a SAM Wrist Splint

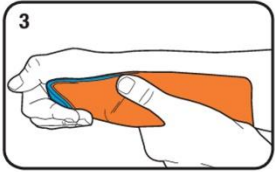
VOLAR WRIST



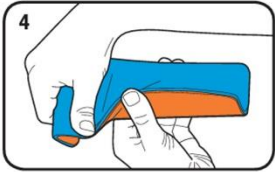
Step 1: Roll the end of a 9-inch (for children) or 18-inch (for adults) SAM Splint over to provide comfort for fingers.



Step 2: Apply a C-Curve.



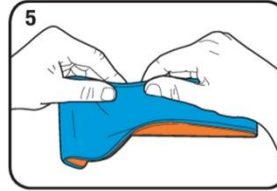
Step 3: Using your own right or left hand and wrist as a template, mold the splint into the position of function.



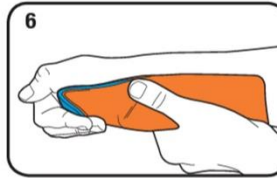
Step 4: Be sure to create a generous curve for the base of the thumb.

ADDENDUM 9: EXTREMITIES
UPPER BODY & EXTREMITIES

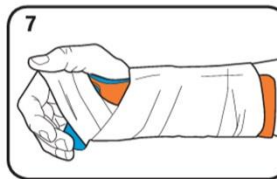
VOLAR WRIST (CONTINUED)



Step 5: Obtain additional strength by folding up the ulnar (little finger) side of the splint.



Step 6: Apply to patient.



Step 7: Make fine adjustments as necessary. Secure with your wrap of choice.

Bee Stings

Bee stings are a common outdoor nuisance. In most cases, bee stings are just annoying, and home treatment is all that's necessary to ease the pain. But if you're allergic to bee stings or you get stung numerous times, you may have a more-serious reaction that requires emergency treatment. You can take several steps to avoid bee stings — as well as hornet and wasp stings — and find out how to treat them if you do get stung.

Symptoms

Bee stings can produce different reactions, ranging from temporary pain and discomfort to a severe allergic reaction. Having one type of reaction doesn't mean you'll always have the same reaction every time you're stung or that the next reaction will necessarily be more severe.

Mild reaction

Most of the time, bee sting symptoms are minor and include:

- Instant, sharp burning pain at the sting site
- A red welt at the sting area
- Slight swelling around the sting area

In most people, the swelling and pain go away within a few hours.

Moderate reaction

Some people who get stung by a bee or other insect have a bit stronger reaction, with signs and symptoms such as: Extreme redness.

Swelling at the site of the sting that gradually enlarges over the next day or two

Moderate reactions tend to resolve over five to 10 days. Having a moderate reaction doesn't mean you'll have a severe allergic reaction the next time you're stung. But some people develop

similar moderate reactions each time they're stung. If this happens to you, talk to your doctor about treatment and prevention, especially if the reaction becomes more severe each time.

Severe allergic reaction

A severe allergic reaction (anaphylaxis) to bee stings is potentially life-threatening and requires emergency treatment. A small percentage of people who are stung by a bee or other insect quickly develop anaphylaxis. Signs and symptoms of anaphylaxis include:

- Skin reactions, including hives and itching and flushed or pale skin
- Difficulty breathing
- Swelling of the throat and tongue
- A weak, rapid pulse
- Nausea, vomiting or diarrhea
- Dizziness or fainting
- Loss of consciousness

People who have a severe allergic reaction to a bee sting have a 25% to 65% chance of anaphylaxis the next time they're stung. If you have a severe allergy, make sure you carry an Epi-Pen kit.

Treatment

1. The first thing to do is to get the stinger out quickly. The longer the stinger stays in the skin, the more venom it releases, adding to the person's pain and swelling.
2. Stay calm. Although most bees usually only sting once, wasps and hornets can sting again. If you are stung, calmly walk away from the area to avoid additional attacks.
3. Remove the stinger. If the stinger remains in your skin, remove it by scraping over it with your fingernail or a piece of gauze. Never use tweezers to remove a stinger, as squeezing it can cause more venom to release into your skin.
4. Wash the sting with soap and water.
5. Apply a cold pack to reduce swelling. However, if the swelling moves to other parts of your body, such as your face or neck, go to the emergency room immediately, as you might be having an allergic reaction. Other signs of an allergic reaction include difficulty breathing, nausea, hives, or dizziness.

Consider taking over-the-counter pain medication. Bee, wasp, and hornet stings are painful. Painkillers like acetaminophen or ibuprofen can help relieve the pain. Always follow the directions on the label and use the correct dose.

Nosebleeds

"Epistaxis" is the medical term for a nosebleed. A nosebleed, meaning a loss of blood from the tissue that lines the inside of your nose, can occur in one or both nostrils. Usually, it only affects one nostril.

Your nose has many tiny blood vessels in it. These vessels help warm and moisten the air you breathe. But they lie close to the inner surface of your nose. When air moves through your nose, it can dry and irritate your blood vessels. This makes them very easy to injure or break, causing a nosebleed.

Although bothersome, most nosebleeds aren't serious.

Treatment

1. Sit upright and lean your body and your head slightly forward. This will keep the blood from running down your throat, which can cause nausea, vomiting and diarrhea. (Don't lay flat or put your head between your legs.)
2. Breathe through your mouth.

3. Use a tissue or damp washcloth to catch the blood.
4. Use your thumb and index finger to pinch together the soft part of your nose. Make sure to pinch the soft part of the nose against the hard bony ridge that forms the bridge of your nose. Squeezing at or above the bony part of your nose won't put pressure where it can help stop the bleeding.
5. Keep pinching your nose continuously for at least five minutes before checking if the bleeding has stopped. If your nose is still bleeding, continue squeezing your nose for another 10 minutes.
6. If you'd like, apply an ice pack to the bridge of your nose to further help narrow blood vessels (which will slow the bleeding) and provide comfort. This isn't a necessary step, but you can try it.
7. After the bleeding stops, don't bend over, strain and/or lift anything heavy. Don't blow or rub your nose for several days.

Head injury:

A head injury is any sort of injury to the brain, skull, or scalp. This can range from a mild bump or bruise to a traumatic brain injury.

Types of head injuries:

- Concussion: This is a jarring injury to your brain. Most of the time, people remain conscious. They may feel dazed and lose balance for a brief time.
- Brain contusion: This is a bruise of your brain. Minor bleeding in your brain causes swelling.
- Skull fracture: This is a crack in the skull. Sometimes, the broken skull bones can cut into the brain.
- Hematoma: This is bleeding in your brain that collects and clots, forming a bump. A hematoma may not appear for a day or as long as several weeks.

Causes:

- Falls (most common cause);
- Exercising and sports-related accidents;
- Physical assaults;
- Traffic accidents.

Symptoms:

- Headache (following the head injury);
- Ringing in the ears;
- Vomiting and nausea;
- Dizziness, and disorientedness;
- Neck pain, or visual problems;
- Swelling;
- Loss of consciousness, usually for a short period of time (less than a minute).

When to call the ambulance and seek medical help:

- Loss of consciousness;
- Worsening headache;
- Drastic changes in behavior (such as anger or confusion);
- Trouble understanding, speaking or walking;
- Impaired senses (such as hearing loss and vision impairment).
- Recurrent vomiting;
- Inability to remember incidents before or after the injury;
- Weakness or numbness in the arms or legs;
- Seizures;

- Leaking of blood or a fluid from the ear or the nose.
- Memory loss;
- Problems breathing.

Treatment and first aid:

- The treatment for head injuries depends on the injury severity. Most often, mild injuries do not require treatment. However, you should know the signs and symptoms that require medical attention.
- If the head injury is severe, call the ambulance immediately.
- If the injured person is bleeding, try to stop the bleeding by using gauze, or a clean cloth.
- If the wound is open, do not touch or apply pressure on it. Cover or wrap the wound with a clean piece of gauze (bandage) instead.
- If the person is vomiting while sitting, help them to lean forward. If the person is vomiting while lying down, roll their body to the side to prevent choking.
- If the person is awake, instruct them not to move their head and neck. This can help prevent further damage to their spine and brain.
- If the person is unconscious and breathing, try to stabilize their body. This includes keeping their neck and head in line with their spine.
- If the person is unconscious and not breathing, begin the process of CPR (cardiopulmonary resuscitation)

Hyperthermia (heat stroke)

Hyperthermia is elevated body temperature due to failed thermoregulation that occurs when a body produces or absorbs more heat than it dissipates. Extreme temperature elevation then becomes a medical emergency requiring immediate treatment to prevent disability or death. The most common cause is an acute temperature elevation caused by exposure to excessive heat, or combination of heat and humidity, that overwhelms the heat-regulating mechanisms.

Signs and symptoms

An early stage of hyperthermia can be "heat exhaustion" (or "heat prostration" or "heat stress"), whose symptoms include heavy sweating, rapid breathing and a fast, weak pulse. If the condition progresses to heat stroke, then hot, dry, skin is typical as blood vessels dilate in an attempt to increase heat loss. An inability to cool the body through perspiration may cause the skin to feel dry.

Other signs and symptoms vary. Accompanying dehydration can produce nausea, vomiting, headaches, and low blood pressure and the latter can lead to fainting or dizziness, especially if the standing position is assumed quickly.

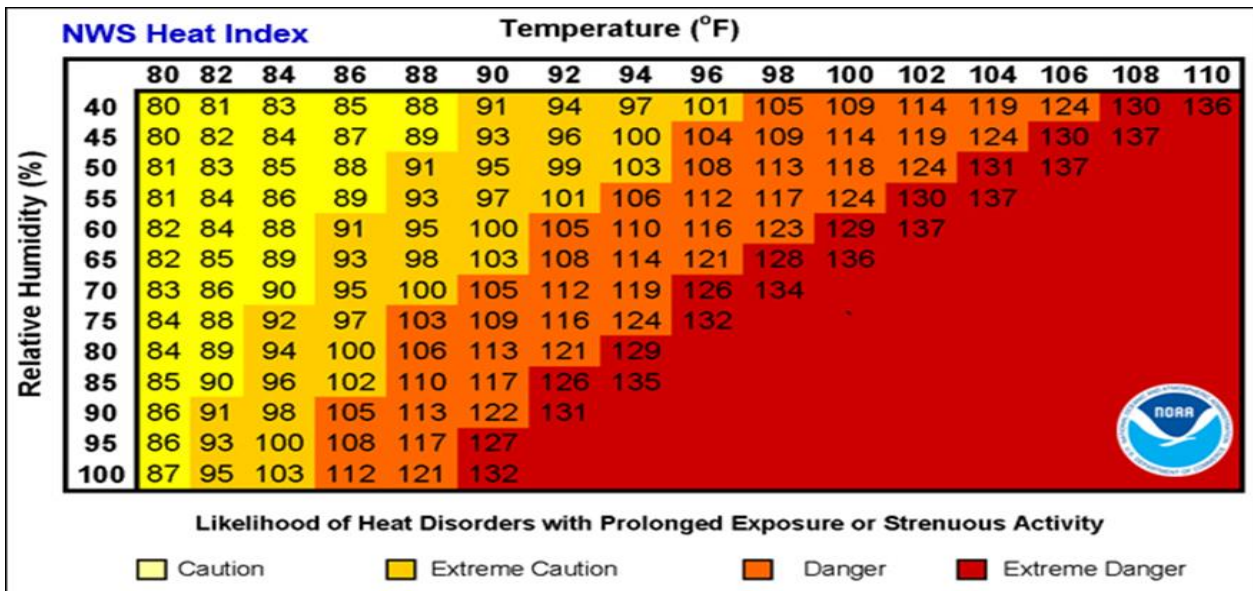
In severe heat stroke, there may be confused, hostile, or seemingly intoxicated behavior. Heart rate and respiration rate will increase (tachycardia and tachypnea) as blood pressure drops and the heart attempts to maintain adequate circulation. The decrease in blood pressure can then cause blood vessels to contract reflexly, resulting in a pale or bluish skin color in advanced cases

Exertional

Significant physical exertion in hot conditions can generate heat beyond the ability to cool, because, in addition to the heat, humidity of the environment may reduce the efficiency of the body's normal cooling mechanisms. Human heat-loss mechanisms are limited primarily to sweating (which dissipates heat by evaporation, assuming sufficiently low humidity) and vasodilation of skin vessels (which dissipates heat by convection proportional to the temperature difference between the body and its surroundings, according to Newton's law of cooling). Other factors, such as insufficient water intake, consuming alcohol, or lack of air conditioning, can worsen the problem.

Prevention

Fluid intake is essential to prevent heat related illness. Drink small amounts of water often (before you become thirsty). Drink about 4 cups of water every hour while the heat index is 103 to 115°F. Hikers will need the greatest amount of water if they walk in direct sunshine, during peak exertion, and during the hottest part of the day. Under most circumstances extended hourly fluid intake should not exceed 6 cups per hour or 12 quarts per day. To maintain hydration, it is particularly important to reduce work rates, reschedule for a time when the heat index is lower, or enforce work/rest schedules when work must continue during periods of extreme risk for heat-related illness.



Snakebite Rattlesnakes



California is home to nearly 50 native snake species, including 7 species of rattlesnake. Rattlesnakes live throughout California and generally avoid humans, with bites being uncommon. But a startled rattlesnake can be aggressive. Snakes, notably rattlesnakes, typically emerge in warm weather to explore their environment, which can lead to more encounters with humans and dogs

This summer the East Bay Regional Park District issued a rattlesnake advisory for inland areas of the Bay Area. The warning comes after a 7-year-old boy was airlifted from Mount Diablo State Park in early June when a snake bit him. Steve Hill, a spokesperson for the Contra Costa County Fire Protection District, told SFGATE at the time that the boy's mother carried him to a parking lot, where he was put in a CHP helicopter that rushed him to a local hospital.

"This time of year, we do receive a lot of rattlesnake reports because this is the time of year when rattlesnakes and people are most active outdoors," said Peter Tira, a spokesperson for the California Department of Fish and Wildlife. "We don't want to prevent anyone from enjoying the outdoors. The No. 1 thing is to be aware."

To avoid bites from happening, stay on trails and avoid walking through tall grass. Before you sit down, take a look at what you're sitting on and look for snakes around nearby rocks and logs. Tira recommends wearing pants and boots on hikes, rather than shorts and sandals.

"A lot of people are surprised that rattlesnakes can swim, and sometimes they will try to climb aboard a boat or a kayak," Tira said.

If you are bitten by a rattlesnake, health professionals recommend that you remain calm and get medical attention as soon as possible. If you're hiking, it's best to send someone else to call 911. "Do not run," the East Bay Regional Park District says.

Treatment for snakebites

Call for emergency help right away if someone has been bitten by a snake. Responding quickly in this type of emergency is crucial. While waiting for emergency help:

1. Wash the bite with soap and water.
2. Keep the bitten area still and lower than the heart.
3. Cover the area with a clean, cool compress or a moist dressing to ease swelling and discomfort.
4. Monitor breathing and heart rate.
5. Remove all rings, watches, and constrictive clothing, in case of swelling.
6. Note the time of the bite so that it can be reported to an emergency room healthcare provider if needed.
7. If possible, try to remember to draw a circle around the affected area and mark the time of the bite and the initial reaction. If you are able, redraw the circle around the site of injury marking the progression of time.

8. It is helpful to remember what the snake looks like, its size, and the type of snake if you know it, in order to tell the emergency room staff.

Outmoded Treatment for snakebites:

1. Application of a tourniquet to the bitten limb is generally not recommended. There is no convincing evidence that it is an effective first-aid tool as ordinarily applied.
2. Tourniquet use is dangerous, since reducing or cutting off circulation can lead to gangrene, which can be fatal. In worst-case scenarios, thoroughly constricting tourniquets have been applied to bitten limbs, completely shutting off blood flow to the area. [By the time the person finally reached appropriate medical facilities their limbs had to be amputated.]
3. Cutting open the bitten area, an action often taken prior to suction, is not recommended since it causes further damage and increases the risk of infection.
4. Sucking out venom, either by mouth or with a pump, does not work and may harm the affected area directly. Suction started after three minutes removes a clinically insignificant quantity—less than one-thousandth of the venom injected—as shown in a human study
5. Drinking abundant quantities of alcohol following the cauterization or disinfection of the wound area.

In extreme cases, in remote areas, all of these misguided attempts at treatment have resulted in injuries far worse than an otherwise mild to moderate snakebite.



Hiking tips to-consider-stay safe and Enjoy Day from Pat

- If you can't talk, while walking- need to rest or slow down, eat/drink-help others remember
- If not using the bathroom, or can't spit...not drinking enough (hydrate day before hike & after)
- RICE = Rest, Ice, Compression, Elevation For ankle sprains etc
- Can get hyperthermia not just from hot days but also from over dressing.
- Watch poles (plant them so don't hit person behind you, stay 6ft behind , plus reminds snakes we r around to stay away! Hiking boots that are ankle height can help protect you against bites..!!!
- If you see something that could cause a problem Call it out, for everyone to know (branch hanging etc) also if you need to stop (boot untied etc)
- On single track, don't pass people, wait till we are all stopping
- Don't rub eyes, carry towel or Kleenex (poison oak can get in eyes)
- Make sure Med card filled out
- If you are sick don't come, if you were sick before the hike, or received vaccines, consider not coming
- If not feeling well while hiking, tell leader before it's an emergency,
- Realize not all hikes are for everyone, we all have different abilities and medical issues or history of them.
- If you take whenever necessary meds like Nitroglycerin, bring it with you, same with epi pens, Benadryl, inhalers
- Spray clothes to avoid ticks, (permethrin) Be Familiar with symptoms of Lyme disease

- Every group should have a club 1st aid kit with them. Every person should have health Emergency card completed (See Harriet if need one)
- Consider Wear glasses, avoids getting hit in eye low hanging branches, dust, wood etc being kicked up with poles etc
- If you have a medical problem wear med alert bracelet, necklace, (diabetic, allergy, a-fib, blood thinners)
- Keep Tetanus shots updated