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Deb Robak, Content Editor

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We'd like to extend a very special thank you for all who contributed to the success of Leader Skills Day. It took a village, from all the speakers to all those that helped with the logistics along the way. We are so proud to serve such a great organization with such wonderful volunteers.

The Denver Safety & Leadership Committee; Deb Robak, Safety Director & Chair Leader Skills Day 2012

SNAKE BITES



Leaders: take this rattlesnake bite readiness assessment test:

You are leading a CMC hiking trip in the Lost Creek Wilderness area on a warm spring day when you hear an expletive from behind you. One of the hikers had put his hand down on a rock and was bitten by a rattlesnake behind it. There are 2 small puncture marks on the hand. There is immediate pain and swelling, and bruising appeared within a few minutes. You are about 7 miles from the trailhead and have no cell phone reception. One of the hikers has a first aid kit which includes a snake-bite kit (scalpel blade, suction, and tourniquet).

What should you do? (True or False)

1. Make 2 small incisions over the bite marks and apply suction to extract venom **True False**
2. Immobilize the bitten arm **True False**
3. Record vital signs on accident report sheet; repeat every 10 minutes **True False**
4. Administer small doses of medicinal whiskey to both the victim and trip leader for its calming effect
True False
5. Keep the victim as comfortable and calm as possible **True False**
6. Kill or capture the snake. **True False**
(don't worry about getting bitten as rattlesnakes require 24 hrs to replenish their venom)
7. Prepare a shelter as you will be spending the night **True False**
8. Send 2 fast walkers out to summon help **True False**
9. Keep the victim moving to prevent him/her from falling asleep **True False**
10. Begin walking towards the nearest trailhead. **True False**

Snakebite

In the spring, a young man's (and many ladies') fancy turns to, among other things, hiking on snow-free trails especially in front range open space parks. At the same time, rattlesnakes are looking for a little warm sunshine in the same places and therein lies the potential for snakebite.

The rattle snake is the only poisonous snake native to Colorado, and only two of 32 species are found here. The massasauga rattlesnake is found in the southeastern plains, and the western rattlesnake is found elsewhere below about 9500 ft. elevation. The Front Range hills are ideal rattlesnake habitat.

Rattlesnakes use their venomous bite to kill their prey. They are not usually aggressive to humans but will bite in self-defense if threatened or disturbed. A motionless rattlesnake in the grass can be nearly invisible until it is stepped on and bites in self defense.

A rattlesnake does not always rattle in warning. They prefer to strike from the coiled position and can reach about half of their body length. A large 8 foot snake could strike about 4 feet away. **Don't get that close.**

Is it a rattlesnake?

Rattlesnakes are members of the pit viper family and have several unique identifying characteristics. The tail rattle and a neck that is narrower than the head are probably most obvious. A set of heat-sensing "pits" on their face enable them to sense their prey's body heat and strike towards it. If you are close enough to a live rattlesnake to see the heat sensing pit you are too close. Way too close.

Rattlesnake bites

When the rattlesnake bites, venom is injected through hollow retractable fangs. Two small fang marks may be seen at the site of the bite. The amount of venom injected is partly under voluntary control. It also depends on the size of the snake and whether the snake has recently discharged venom into prey. Some bites may be "dry" with no envenomation. Rattlesnake venom is a complex mixture of enzymes, various metal ions, biogenic amines, lipids, free amino acids, proteins, and polypeptides. The effect of this toxic brew is both local and systemic. The venom promptly causes swelling and severe pain at the site. As the venom is absorbed and spreads, systemic symptoms include weakness, anxiety, nausea and vomiting,

hemorrhaging, perspiration, and eventually heart failure.

First aid

Not all strikes result in envenomation. The absence of bite marks suggests a near miss. The absence of severe pain and swelling at the bite site, after one hour, suggests a dry bite without envenomation. In the event of envenomation, there is limited effective first aid. The only effective treatment is anti-venom, which is only available in a hospital setting, and is most effective if administered within 1-2 hours. Time is of the essence.

In the event of a rattlesnake bite, keep away from the snake and avoid getting anyone else bit. There is no need to kill or capture the snake. Keep the victim calm with reassurance. Even the severed head of a dead snake can deliver a venomous bite. Keep the victim as calm as possible (how calm can you be after getting bitten by a rattlesnake?). Panic and movement just increase the spread of the venom. Clean the wound, and apply a loose sterile dressing. Immobilize the affected body part to reduce movement as much as possible. Remove constricting jewelry, such as rings or bracelets, which may be impossible to remove if swelling develops in the area later. Get the victim to a hospital as quickly as possible, calling for a helicopter evacuation if necessary. Time is critical and walking out may be necessary if no other means is available.

What not to do

Most of the first aid measures that some of us senior citizens learned in Boy Scouts, including making skin incisions, and sucking or suctioning venom, are ineffective and may cause more local damage. A tourniquet is not recommended except perhaps in the event of severe envenomation with systemic symptoms and no chance for timely evacuation. A tourniquet, just tight enough to

constrict the skin, but not tight enough to stop the arterial pulse may retard the spread of venom throughout the body, but will almost certainly result in loss of the affected limb.

Other poisonous snakes

There are many other species of rattlesnakes throughout the US. Arizona has the most, 17 species, with the most deadly being the Mojave rattlesnake. Other venomous pit vipers are copperheads and water moccasins also known as cottonmouths. Other poisonous snakes are the coral snake and the rear-biting snakes. If you are leading a trip outside of Colorado you would be well advised to research the poisonous snakes at your destination as well as the appropriate first aid for each. **Don't** forget the scorpions, spiders and Gila monsters!

“Always carry a flagon of whiskey in the event of snake bite, and furthermore always carry a small snake”. W.C. Fields.

References:

Wilderness First Aid, 3rd ed; Wilderness medical Society, 2008
Practice guidelines for wilderness medical care. Forgey W, ed, 5th ed, Wilderness Medical Society. 2006
Field Guide to Wilderness Medicine, Auerbach P, Donner H, Weiss E;Mosby, 1999

Score yourself on the Rattlesnake Bite Readiness

Quiz: Give yourself 1 point for each correct answer, no cheating:

1. False
- 2 True
- 3 True
- 4 True
- 5 False
- 6 False
- 7 False
- 8 True
- 9 False
- 10 **Either True or False – depending on leadership judgment. Walk out only if there is no faster way to get medical care.**

Score:

0-4: You are a danger to yourself and others in rattlesnake country, don't go out without adult supervision

5-6: A little knowledge is a dangerous thing: you should be a radio talk-show host

7-8: A little more knowledge, a little more dangerous; you should run for political office

9-10: Congratulations, you are qualified to walk barefoot through the grass in rattler country

Special thanks to Mike Weaver M.D. for writing this article.



Dr. John: Ibuprofen helps with altitude sickness

KUSA - The simple, widely available, over-the-counter medicine ibuprofen might be just the ticket for helping with altitude sickness.

It's a very common occurrence here in Colorado. Visitors come from lower altitudes to enjoy some time in our beautiful state but start to notice symptoms of altitude sickness.

These symptoms include a headache, fatigue, dizziness and sometimes nausea and vomiting. In addition, they most likely also feel like they are working harder to breathe, like they are constantly trying to catch their breath.

The tough part has been to try and figure out what to do about it, since it normally takes days to weeks to fully acclimate to our higher altitude, meaning the first few days of someone's vacation could be uncomfortable.

There are other medicines that are used to help treat altitude sickness. Dexamethasone and acetazolamide are the two most often prescribed but both have side effects that can make them tough for some to take. Having a simple medicine like ibuprofen to treat this problem can help those

going to higher altitude, including those coming to Colorado for a visit.

Researchers publishing a study in the Annals of Emergency Medicine gave 86 low-altitude volunteers either 600 mg of ibuprofen or a placebo six hours before ascending to a higher altitude and then at six-hour intervals. Significantly fewer of those taking the ibuprofen reported altitude sickness symptoms.

Although researchers aren't exactly sure what causes altitude sickness to begin with, having a simple medicine like ibuprofen to treat the symptoms can help someone visiting Colorado from lower altitudes. Being able to take the medicine once you arrive, instead of beforehand, makes it more convenient as well.

During our summer months in particular, visiting family and friends might benefit from a few days of ibuprofen treatment while their bodies acclimate to our higher altitude and lower oxygen levels. Then hopefully they can fully enjoy their visit here.

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Special thanks to John Walters for submitting this article.





WHEN SHOULD YOU CALL A DOCTOR?

A lot of sports injuries can be self-diagnosed and self treated. But in these three instances, you should have a pro look you over.

1. You have any **joint pain, swelling** or **instability**. If a joint hurts or swells, especially a knee, hip, shoulder, ore elbow – see a doctor. But if the area also turns red and is warm to the touch, head to your doctor ASAP, you could have an infection.
2. Your injury involves **loss of consciousness or memory**. I’m talking about a possible concussion here. Don’t be stupid. Even the most minor brain injury needs to be checked out by a doctor – not a buddy, not a coach.
3. The **pain doesn’t go way**. Even if you do not self-care whatsoever, just about any strain, sprain or pain should show some improvement within a week to 1 0 days. If it doesn’t – or actually worsens – then make the call and have the injury checked out.

Men’s Health Magazine, April 2012
