

Jamboree Health and Safety Considerations

From: Conservation Area Plan, 6/15/01

Lyme Disease

1. Lyme Disease is an infection caused by the bacterium *Borrelia burgdorferi*, which can be transmitted by the bite of certain species of ticks. The disease often starts as a skin rash and can progress to more serious stages involving joint, nerve, or heart tissue. Antibiotics are usually effective, especially if treatment starts early in the disease process. Lyme Disease has now been reported in at least 47 states in the U.S. as well as in many countries throughout the world.

2. The Tick - In the U.S., two closely related tick species - *Ixodes scapularis* and *Ixodes pacificus* - have been identified as harboring and transmitting the disease-causing *Borrelia* bacterium to people and animals. *I. scapularis*, the black-legged tick is found in the eastern U.S... Keep in mind that *Ixodes* species are smaller than the common American "dog tick," which does not transmit the Lyme Disease-causing spirochetes. While spring and summer are the seasons when ticks are most active in the Northeast and Midwest, a warm winter or a dry spring may increase the number of ticks in many regions. The two *Ixodes* ticks are found in a variety of habitats, principally woodlands and bushy areas where they feed on a variety of wild animals such as birds, mice, and deer. Domestic animals can also carry ticks.

3. The Bite and Transmission - Most people do not feel a tick biting nor the subsequent drawing of blood it needs for nourishment. If left undisturbed, the tick will remain attached to its host and become engorged with blood over the next 2-4 days, eventually dropping off. If the *Ixodes* tick happens to be a carrier of the *Borrelia* spirochetes, it may transmit them to the host during this feeding process. Once in your body, the spirochetes can multiply. Not all ticks carry the spirochete, and a bite does not always result in the development of Lyme Disease - even if the tick is a carrier.

4. Tick Removal - Remove the tick promptly; the sooner you remove it, the less chance of infection. Use either a tick-removing device or fine-point tweezers. Do not squeeze the tick's body; grasp it where its mouth parts enter the skin and tug gently and repeatedly, until it releases its hold by withdrawing its barbed mouth part from your skin. Above all, be patient - proper tick removal will take time. Save the tick in a covered jar of alcohol labeled with the date, the body location of the bite, and the place where you think you acquired the tick. Wipe the bite area with antiseptic, or wash with soap and water.

5. Symptoms - A typical early symptom of the disease is a slowly expanding red rash at the site of the tick bite. The rash usually appears within a week to a month after the bite and can slowly expand over several days. Sometimes there are multiple, secondary skin rashes. This large rash should not be confused with the harmless red spot that usually is seen immediately after receiving the bite. Many people have a small redness at the site of the bite, which is a normal sensitivity to the bite itself. Although a majority of infected persons develop the classic red rash, many do not. Other common symptoms of early Lyme Disease - with or without the rash - are flu-like, and include fatigue, headache, neck stiffness, jaw discomfort, pain or stiffness in muscles or joints, slight fever, swollen glands, or reddening of the eyes. If untreated, Lyme Disease can progress to more serious stages. In these later stages of the disease, the joints, the heart, and the central nervous system can be involved. One example is so-called "Lyme Arthritis," with attendant joint pain and swelling. These symptoms, which usually occur in a single joint, can go away

after a few days, and recur in another joint. Heart symptoms, which can occur within one to three weeks after the rash, include dizziness, weakness, and an irregular heartbeat. Still other patients may develop weakness of facial muscles - drooping of an eyelid or a corner of the mouth, or inflammation of the eye.

6. Treatment - Lyme Disease is treatable. Naturally, it is easier to treat when it is detected early. However, even in its later stages the disease commonly responds to medication. Antibiotics are the treatment of choice, and your physician will choose the one that is best for you. Keep in mind that you may contract the disease repeatedly or have a relapse. Although research is underway on vaccines that could provide long-term protection, they are at least several years from approval.

7. Prevention - Be aware of and avoid tick habitats, such as tall grass, bushes, brush, and woods. If you go into such habitats, wear shoes and appropriate clothing - a hat, long-sleeved shirt, and long pants tucked into socks. The use of tick repellents on the outside of clothing may be helpful. Before coming indoors, brush off your clothing. Once inside, remove all clothing and check for ticks. Remove and dispose of any unattached ticks. If you find a tick that is attached to you, follow the procedure outlined under TICK REMOVAL. Monitor the bite area and be alert for early symptoms, such as an expanding rash or flu-like signs over the next month or so.

Poisonous Spiders

The majority of spiders are harmless. There are only two widely spread poisonous spiders in the USA. The Black Widow is the only one found in every state, while the Brown Recluse is most commonly found in the Central and Southern states.

The adult Black Widow is glossy black to sepia with dense, short, almost microscopic hairs. It has a distinctive crimson hourglass marking on the underside of the abdomen, which may vary in shading and design, but it is only rarely absent. The adult male Black Widow is not venomous.

The Brown Recluse spider is a small spider that can be more venomous than the Black Widow. It varies in color from light yellow to dark brown and is easily identified by a fiddle-shaped mark on the top of its body. The female Brown Recluse ejects about twice as much venom as the male.

The best method to control either spider is to search it out. Black Widows can be found in outbuildings, vacant lots, fields, rock piles, and rubbish; Brown Recluses in dry dark places such as storerooms, closets, bedding, shoes, etc. Either spider can be controlled with a lindane emulsion. Corners in garages, outbuildings, etc., may be sprayed with a penetrating creosote as a repellent.

Treatment - The Black Widow bite is similar to a pinprick, and may not always be felt. Often there is but little evidence of lesion. However, a slight swelling and two tiny red spots may occur, and local redness is usually evident at point of attack. Pain in the bite region is felt almost immediately and increases, reaching maximum intensity in 2 to 3 hours, continuing from 12 to 48 hours, gradually subsiding. Rigidity and spasm of most large muscle groups, particularly in abdomen, are constant symptoms. There is a slight rise in body temperature, increased blood pressure, profuse perspiration, and a tendency for nausea. The degree of these symptoms varies in individual cases. *The poisoning can result in death.*

Brown Recluse bites may cause a slight stinging, but often the victim is unaware of the bite until pain is noted in 2 to 8 hours. This is often followed by swelling, blistering, and sometimes

hemorrhage and ulceration. Effects are variable, either spreading throughout the body to induce general prostration, possibly fatal; or it may remain localized around the bite, where the area reddens and swells, causing intense pain.

First aid is recommended for the bite or sting of any small unknown animal, it could be a Black Widow or Brown Recluse spider, or a scorpion or something else. Scouts should report all bites to an adult leader to ensure proper first aid.

If you are clothed, the bite or sting probably will be on some extremity, such as the finger. A stricture should be applied at once between the bite or sting and the body. If ice is available, place some on the bite while preparing a pan of crushed ice and water. **IMPORTANT:** after 5 minutes, remove stricture from the member, but keep hand in ice water for two hours.

If the venom was not that of a deadly scorpion or spider, a definite swelling around the bite will form, in spite of the cold treatment which may then be stopped.

Consult a physician if the victim is under 5 years of age, has a heart ailment, has been bitten or stung in a number of places, or has been bitten or stung on vital areas of the head or on the genitals.

If it is necessary to seek medical aid, place an ice pack or crushed ice over the bite or sting area. Use such and ice pack, too, if the bite or sting is on some part of the body other than the extremities. Retain the pack for 2 hours, irrespective of subsequent treatment.

Poison ivy, sumac and oak - The sap of poisonous plants takes about 20 minutes to bind to the skin. If you think you have touched one, rinse immediately with soap and water if you have it, or water alone. Calamine lotion may relieve itching. Try not to scratch. Remove any lingering sap by laundering clothing that has come in contact with poisonous plants.

Poisonous snakes - Should a Scout encounter a poisonous snake in or around the Conservation Area, it will most likely be a copperhead. Copperheads live in woodlands and rocky outcroppings of the eastern half of the country. It has no rattles to announce its presence, but you can recognize it by its copper-brown color with an hourglass pattern of darker shade. The grayish female copperhead is more dangerous than the male. First aid for the bite of a poisonous snake must begin quickly. Have the victim lie down and rest the bitten part lower than the rest of the body. Keep him calm and quiet. Put a constricting band 2 to 4 inches above the bite to slow the spread of the venom. Make it just tight enough so it's not too easy to push your fingers between the band and his skin. If the area swells, loosen the band. Treat the victim for shock. Get medical help immediately. If you know what kind of snake it was, tell the medical assistance team.

Falling tree limbs during thunderstorms -All staff members are requested to identify any dead trees in their immediate area and request removal prior to the beginning of operations.

Heat Emergencies - Exposure to heat makes the body work to keep itself cool. But sometimes the body's cooling system becomes strained, resulting in heat exhaustion. Or it breaks down completely, which is a condition known as heat stroke. Common sense will protect you from heat problems. Drink plenty of fluids. Rest in the shade when you feel too warm. If the weather is hot, ease up on hard physical work and play.

Heat Exhaustion Symptoms - The victim's face is pale, with cold sweat on the forehead. The whole body may feel cool and clammy from perspiration. Shallow breathing. Nausea and vomit-

ing. Dilated pupils. Headache and dizziness. First Aid: Move the victim to a cool, shady spot. Place him on his back and raise his feet. Loosen his clothing. Fan him and apply cool, wet cloths. Give him sips of water.

Heat Stroke is usually caused by exposure to the sun. The victim's body temperature soars, making heat stroke a life and death matter. Get medical assistance at once. The patient's face is like the sun - red and very hot. The skin is often dry, but if the victim has been exercising hard, he may be covered with sweat. Very small pupils. Rapid, strong pulse. Slow, noisy breathing. He may be unconscious. First Aid: Quickly get the victim into a cool, shady spot. Place him on his back with his head and shoulders raised. Undress him immediately, then cool him - especially his head - with water. Cover him with dripping wet towels, shirts, or cloths. Keep the covering cool by dousing them with water or wringing them in cold water. Be ready at any time to begin rescue breathing.

Hypothermia - In especially cold, wet, or windy weather, all staff should keep an eye out for any Scout or leader who seems unusually chilled, with symptoms such as continual shivering, loss of coordination, and exhaustion. These conditions represent danger and the individual may be slipping toward hypothermia, a state in which the body's inner core temperature begins to decrease. The danger is extreme and immediate treatment is a must. Early detection is critical, since a person may become hypothermic in a matter of minutes and can die in less than 2 hours if unattended. Immediate treatment is:

- Prevent further heat loss by moving the victim to the best shelter available.
- Replace wet clothing with dry garments.
- Insulate the victim from the ground and wind.
- Keep the victim warm. Place the victim in a sleeping bag and call for assistance.

THUNDERSTORMS AND LIGHTNING

1. Thunderstorms are most likely to happen in the spring and summer months and during the afternoon and evening hours but can occur year-round and at all hours. Since all thunderstorms produce lightning, all of us in the conservation area must be prepared for a thunderstorm and its associated lightning.

2. Chances of being struck by lightning are estimated to be 1 in 600,000. Most deaths and injuries occur when people are caught outdoors, in the summer months and during the afternoon and early evening.

3. **FACTS**: Lightning often strikes outside of heavy rain and may occur as far as 10 miles away from any rainfall. Rubber-soled shoes provide no protection from lightning. Lightning-strike victims carry no electrical charge and should be attended to immediately. "Heat lightning" is actually lightning from a thunderstorm too far away for thunder to be heard. However, the storm may be moving in your direction.

4. **CLUES**: When skies darken or thunderstorms are forecast, look and listen for increasing wind, flashes of lightning, sound of thunder. To estimate the distance in miles between you and the lightning flash, count the seconds between the lightning and the thunder and divide by five.

5. **SAFETY**: Before the Storm... Check the weather forecast before leaving for extended periods outdoors. Watch for signs of approaching storms. If a storm is approaching, keep a NOAA Weather Radio or AM/FM radio with you. Check on those who have trouble taking

shelter if severe weather threatens. When Thunderstorms Approach... If you can hear thunder, go to safe shelter at the Heth Area or Liberty Church immediately. Do NOT take shelter under isolated trees. Find a low spot away from trees, fences and poles and not subject to flooding. **In the woods, take shelter under the shorter trees. If you feel your skin tingle or your hair stand on end, squat low to the ground on the balls of your feet. Place your hands on your knees with your head between them. Make yourself the smallest target possible, and minimize your contact with the ground.**

6. IF SOMEONE IS STRUCK BY LIGHTNING... People struck by lightning carry no electrical charge and can be handled safely. Call for help. Check for burns where the person was struck and where the electricity left their body. Give first aid. If breathing has stopped, begin rescue breathing. If the heart has stopped beating, a trained person should give CPR.

TORNADO AND HURRICANE

1. Thunderstorms develop in warm, moist air in advance of eastward-moving cold fronts. They often produce large hail, strong winds and tornadoes. Several states may be affected by tornadoes. An average of five hurricanes strike the United States coastline every three years. Of these five, two will be major hurricanes, which are storms of category 3 or higher on the Saffir-Simpson scale, which corresponds to hurricanes with winds at or above 111 miles per hour. Tornadoes occasionally accompany hurricanes that move over land and may occur at any time of year. They are most likely to occur between 3 and 9 p.m., moving from southwest to northeast at an average speed of 30 miles per hour.

2. Timely warnings have greatly diminished tornado and hurricane fatalities in the United States. When conditions are favorable for severe weather to develop, a severe thunderstorm or tornado WATCH is issued. Weather Service personnel use information from weather radar, spotters, and other sources to issue severe thunderstorm and tornado WARNINGS for areas where severe weather is imminent. Severe thunderstorm warnings are passed to local radio and television stations and are broadcast over local NOAA Weather Radio stations serving the warned areas.

3. Pre-designated Places of Safety - The pre-designated place of safety for those persons on the north side (Travis Lake Road) of the conservation area is LIBERTY CHURCH. The pre-designated place of safety for those persons on the south side (Thomas Road) of the conservation area is ANY BUILDING IN THE HETH AREA. Should Scouts and/or leaders be unable to get to shelter, adult leaders will be expected to promptly move the group to a low area that is out of danger from dead trees.

4. Definitions - TORNADO WATCH means tornadoes are possible in the immediate area. Remain alert for approaching storms. TORNADO WARNING means a tornado has been sighted or indicated by weather radar. If a tornado warning is issued for the Fredericksburg, Virginia area and the sky becomes threatening, individuals will move to one of the two pre-designated places of safety named in paragraph 2 above. SEVERE THUNDERSTORM WATCH means conditions are favorable for severe thunderstorms in the immediate area. SEVERE THUNDERSTORM WARNING means severe thunderstorms are occurring or is imminent, and individuals will move to one of the two pre-designated places of safety as named above.