

## Symptoms and First Aid Actions for poisonous/venomous flora and fauna in Burlington County, NJ

Prepared by Jennifer Bulava, Senior Naturalist, Burlington County Parks

### FUNGI

Never eat mushrooms in the wild no matter what the color or pattern. Symptoms of mushroom poisoning occur 6-24 hrs after eating, with nausea, vomiting, etc. It harms the liver and kidneys and death occurs within 48 hrs. Cooking doesn't make a poisonous mushroom safe to eat. Owners should not let pets eat wild mushrooms. If a dog/pet eats a mushroom, take a photo for ID by experts. If a child eats a wild mushroom, take a photo and proceed immediately to the ER.

### ANIMALS

Toads: always wash hands after handling toads and never touch your eyes, nose, or mouth until your hands are clean. If the toxin is ingested, muscle twitching, irregular heart rhythm, dizziness, cardiac arrest, and paralysis can result. Frogs and toads are also known to spread Salmonella to humans.

Rattlesnakes: If bitten by a rattlesnake, it is considered a medical emergency. Remove any watches or jewelry, call 911, and leave the limb lower than the heart. **Do NOT** apply ice or heat, tourniquets, or attempt to cut out or remove venom. For non-venomous snake bites, wash the bite with soap and water, and treat as a puncture wound.

Stinging caterpillars: toxin is released upon contact, so immediately wash the area and remove any hairs with scotch tape. Symptoms vary depending on the individual and the amount of hairs embedded in the skin. Most include burning, itching, redness, and inflammation. Topical treatments for skin irritation, hydrocortisone & Benadryl are fine. The **Puss Caterpillar aka Southern Flannel Moth** can cause headache, nausea, fever, abdominal pain, and in rare cases seizures or difficulty breathing in some sensitive people. Remove spines with tape, take an antihistamine, and seek medical attention if symptoms are beyond external rash and pain.

Mosquitos: Mosquitoes are attracted to dark colors and scented products like perfumes, lotions, etc. Black and white striped mosquitos active during the day are the exotic species that can carry diseases like West Nile and Zika viruses. Reduce any standing water sources in your yard including garbage cans, saucers under flower pots, and clogged gutters. Bug zapping products are not effective and kill many more moths and beneficial insects than mosquitoes (studies indicate less than 1% of insects in the traps are mosquitoes).

If symptoms occur beyond regular itching: abdominal pain, fever, headache, lack of appetite, muscle aches, nausea, or swollen lymph nodes = West Nile virus symptoms.

According to the CDC, 8 out of 10 infected with West Nile do not develop symptoms. Those that do usually show signs of a fever and aches. Only about 1 in 150 people with the infection develop severe illness affecting the central nervous system. A doctor can order tests to look for a specific virus infection. 8 people in NJ tested positive for West Nile in 2023 (4 of which were in Bergen County).

Fever, rash, headache, joint pain, red eyes (conjunctivitis) and muscle pain = Zika Virus symptoms. According to the CDC, most people with Zika virus won't have symptoms or only mild symptoms. No known transmitted cases of Zika have been identified locally.

Biting Flies – do not carry and spread diseases like mosquitoes. Treat fly bites just like any other cut or wound. Do not wear black, red or dark blue objects to avoid attracting biting flies.

**BUG SPRAY:** The Centers for Disease Control and Prevention found that Picaridin is more effective than DEET on mosquitoes, and works better on flies as well. Oil of lemon eucalyptus is also recommended by the CDC and is about as effective and long lasting as products with DEET. DEET in very high concentrations can lead to neurological symptoms with a greater risk to children. More than 30% DEET shouldn't be used on children of any age. Children under 2 should not use picaridin. Always spray product on your wrist and then apply to face. For people working in the field all day, can reapply after 4 hours.

### Spiders : 2 venomous species: black widow and brown recluse

Only Black widow spider females are dangerous. They have a red hourglass marking on the underside of the abdomen. Symptoms of a bite include severe muscle pain, abdominal cramps, and muscle spasms, vomiting and sweating and start about 30 minutes after the bite, usually lasting for 3-7 days. Most people do not need medical treatment. In the United States, no deaths due to black widows have been reported since 1983. Anyone who has been bitten and has more than minor pain at the bite site should go to the ER, especially children. They are usually found in wooded areas but also enter garages, sheds, basements, and other dark closed spaces.

The Brown recluse spider causes damage to blood vessels and cell tissue death at the venom site. Reddened skin followed by a blister at the bite site first, pain and itching. An open sore with necrosis develops a week after the bite. Prompt treatment is important, especially for children and elderly people. Most likely to be found under woodpiles, tree bark, leaf litter in the wild. In homes: crawl spaces, storage sheds, deep recesses of garages and basements. Humans are usually bitten accidentally when moving storage items. Clean wound with soap and water, apply antibiotic ointment and ice pack for reducing swelling.

### **TICKS**

Prevention: Reducing rodent habitats, like locating brush piles, woodpiles and rock walls away from the house, can help reduce your exposure at home. Check yourself, your children and/or your pets carefully daily when the temperatures are above freezing. Avoid high grass or brushy areas, walking in the center of trails. Treat clothing and gear with permethrin.

**Deer tick** (AKA blacklegged tick) diseases transmitted and symptoms:

- Lyme Disease: headache, muscle pain, low fever, chills, fatigue, poor appetite, swollen glands. Rash is common early on but not always present (as a bullseye pattern from the bite site).
- Babesiosis: fever, chills, fatigue, headache, muscle pain, sweats and anemia
- Ehrlichiosis/Anaplasmosis: fever, malaise, headaches, chills, severe muscle aches, vomiting, anemia, lung infection, decreased white blood cells and platelets, elevated liver enzymes, seizures, encephalopathy, meningitis, confusion, ataxia and cranial nerve palsy

**Dog Tick** diseases transmitted and symptoms:

- Rocky Mountain spotted fever: fever, headaches, myalgia; characteristic spotted rash begins on wrists, ankles, palms, and soles, and may be absent early in the disease (or completely absent in some people)
- Tularemia: headache, chilliness, vomiting, aching pains, fever, swollen glands, sweating, weight loss

## Lone Star Tick diseases transmitted and symptoms:

- Ehrlichiosis (see above)
- Tularemia (see above)
- TBRF (tick borne relapsing fever): recurring episodes of 3 days on 7 days off of high fevers. Fever is followed by symptoms which may include headache, muscle and joint aches, nausea, chills, arthralgia, vomiting, abdominal pain, dry cough, eye pain, confusion. More common in the Western US at higher altitudes.
- STARI (Southern tick-associated rash illness) – looks and acts like Lyme Disease and includes a bullseye rash.
- Alpha-gal syndrome: tick saliva triggers immune response to a carbohydrate known as alpha-gal found in mammals, resulting in an allergic reaction to red meat and products made from mammals including milk products. Symptoms can develop within 2-6 hours after exposure; hives, rashes, swelling of lips, throat or tongue, upset stomach, shortness of breath, dizziness, nausea. Always seek emergency care if you have a severe allergic reaction.

Early diagnosis and treatment with antibiotics is VERY important to avoid long term effects from any tick-borne illness.

Chiggers: 0.3 mm long, reddish mites found in tall grass, dead leaves, or dense brush in late summer. Bite soft parts of skin (usually ankles or waist), leaving a rash of small raised red spots that itch really bad. Chiggers in the US don't spread diseases.

## REPLENTS for ticks and chiggers:

Use a product containing permethrin on clothing and gear, NOT on the skin. It repels ticks and chiggers as well as other insects. Permethrin actually immobilizes ticks on contact. For people working in the field every day, reapply to shoes every couple days, or daily basis if working in tall grass! Keep sprayed shoes out of the reach of pets that could pick them up in their mouth.

## PLANTS

Poison ivy, poison oak, and poison sumac are all members of the cashew family that contain urushiol oil, which causes the rash. Urushiol can transfer from the plant to something that a person then touches – like gloves, dog fur, shoelaces, clothing, backpack, etc. Clothing must be washed in hot soapy water to remove the oils. Fire does not break down the oil, instead it releases it into the air. It is extremely important **that poison ivy is never burned**. The rash can take anywhere from **24 hours to seven days to develop**. The rash will develop on thinner skin first and can appear later on thicker skin simply because it hasn't erupted yet. Fluid from poison ivy blisters does not contain urushiol and cannot cause a rash. The rash doesn't spread; it just erupts at different times based on the amount of urushiol, and the thickness of the skin. **Not everybody has a poison ivy sensitivity, but that can change at any time.**

Pokeweed: plant sap is toxic, getting more toxic with maturity. Always wear gloves when handling. Horses, sheep, and cattle have been poisoned by eating leaves, as well as dogs. Eating the fruit can cause severe vomiting and diarrhea, and children would need emergency care.

Milkweeds: milky sap throughout the plant contains cardiac glycosides. This toxin can cause nausea, diarrhea, weakness, seizures, heart rhythm changes if it gets in your bloodstream (humans and other mammals). It is very important to avoid skin & eye contact. Wear gloves when handling milkweed, wash your hands, and do not touch eyes or mouth.

Stinging nettles: stinging hairs on leaves and stems are painful and easily embed in skin. Apply ice pack and take OTC antihistamines to reduce itching and swelling.

Horse nettle: Horse nettle is not in the nettle family, but the nightshade family. All parts of the plant are poisonous to humans, livestock, and pets if ingested. The yellow fruits look like little cherry tomatoes but are very toxic.

Poison hemlock: every part is poisonous and fatal if ingested. Symptoms can occur immediately: sweating, vomiting, excess salivation, dry mouth, rapid heartbeat, high blood pressure, muscle weakness/twitches, seizures.

Water hemlock: every part is poisonous and fatal if ingested. Symptoms can occur immediately: delirium, nausea, convulsions, abdominal pain, seizures, and vomiting frequently leading to death. It is considered to be the most toxic plant in North America, and one of the most toxic known to man.

**Both water and poison hemlock** are poisonous to humans, pets, and livestock. Be careful when handling so that toxins can't enter your bloodstream through a cut or mucus membrane. Long sleeves and gloves are recommended as well as eyewear and a dust mask if you are mowing or weed whacking to prevent particles getting in your eyes and lungs.