

Environmental Health

Facts about Ticks



Ticks are annoying and are major carriers of disease in North Carolina. Here are some facts about ticks.

TICK BIOLOGY

Ticks are arachnids that are close relatives of the spiders. There are four stages of growth in the tick – the egg, the larva, the nymph, and the adult. Most common ticks in North Carolina have a similar life cycle. After hatching from the egg, the larva, sometimes called a "seed tick", searches for an animal from which to take a meal. Depending upon the kind of tick, the source of this meal will vary. Not all ticks will attack humans and each stage may attack a different type of animal. The larval tick feeds, drops from the animal (or host), and soon enters the nymphal stage. Another meal is sought by the hungry nymph. After dropping from the host, the fed nymph soon becomes an adult. Adults again seek a host and feed. When feeding, the tick firmly attaches itself to the skin. The mouthparts of the tick are barbed like a fishhook and once in place becomes hard to remove. The tick also produces a glue which holds the mouthparts in the skin. When attached, the tick begins to suck blood. If not removed, the adult female tick will remain attached 5-7 days. During this time she may become four times greater in size and 100 times greater in weight! The male tick also feeds, but not as much as the female. Mating takes place on the host. After feeding, the female drops from the host. About a week later she may lay as many as a 3 – 4,000 eggs – the female tick then dies. Eggs hatch in about a week. Depending upon the type of tick, the cycle from egg to adult may take several months or several years.

TICKS AND DISEASE

Ticks are major carriers (or vectors) of disease in North Carolina. Rocky Mountain spotted fever is a disease that is very common in the state. Lyme disease is a newer, but less common disease, which has

been found in North Carolina. Ehrlichiosis is most common in dogs, but has been transmitted to humans. All of these diseases are easily treated with antibiotics, if diagnosed early. It is important to remember the date when a tick has bitten. A flu-like illness 2-14 days after the bite could mean the start of a tick-carried disease; a physician should be seen. An unusual problem called tick paralysis occurs when a feeding tick produces a toxin (poison) that affects certain nerves. This is rare in people, but often found in dogs. Removing the tick stops the paralysis.

CONTROLLING TICKS

Usually ticks are a problem around the home because a pet dog has carried them into the yard or house. Female ticks on the animal feed, drop-off, and lay eggs. The eggs hatch and thousands of larval ticks seek a meal – usually from the dog. Controlling ticks around the home means keeping the animal free of ticks with the use of a suitable dip, dust, or shampoo and tick collar. Dogs can be de-ticked by hand, but remember to protect your fingers or use tweezers (see below). Where ticks have become a problem around the home an insecticide labeled for tick control can be used. Brush, long grass, and leaf litter are places where ticks may rest or wait for a host. Removing this material by cutting, bagging, or burning will help control ticks.

PROTECTING AGAINST TICKS

When outdoors people often become exposed to ticks. Several things can be done to prevent tick bites. Wear long-sleeved shirts and long-legged pants in areas infested by ticks. Tuck pants legs into socks and shirttails into pants. As ticks climb they can't get beneath the clothing. Use repellants to discourage ticks. Remain on trails wherever possible. Check frequently for ticks on the body – ticks on the scalp are often over-looked.

PROPER REMOVAL OF TICKS

The best way to remove ticks from a person or a pet, is to grasp the tick firmly with tweezers as close as possible to where it is attached to the skin. Fingers may also be used if protected by a tissue. Fluids from the tick could transmit disease. Slowly and steadily, pull the tick straight up. Do not twist; this will break off the mouthparts. Treat the area with antiseptic. Note the date of the tick bite, in case of any signs of illness. Once a tick has become firmly attached to the skin, the use

of Vaseline, fingernail polish, kerosene or a hot match will not dislodge it.

NEED MORE INFORMATION?

Contact your Local Health Department at 336-597-1790
or the Public Health Pest Management Section at (919)733-6407