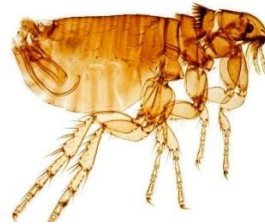


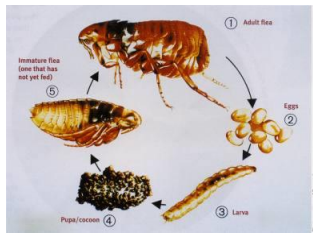
Fleas and Ticks

Fleas and ticks can seem so small, but quickly turn into a major problem. The good news is that preventing the problems that fleas and ticks cause is very easy

Fleas

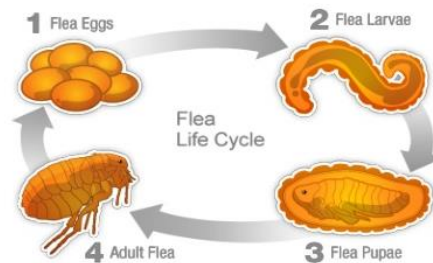


There are two common types of fleas, *Ctenocephalides felis* (the cat flea) and *Ctenocephalides canis* (the dog flea). Fleas go through four different life stages. The first stage are eggs. The eggs are deposited onto the host animal and then fall off into the environment within a few hours. The eggs are



pearly white in color and are oval shaped with rounded ends. They are not able to be seen with the naked eye because they are 0.5 millimeters in length. Once the eggs hatch, they become larva. Larva are maggot like in appearance and are covered in hairs. They are a little bigger than the eggs at 0.5 centimeters but are still not easily seen with the naked eye. The larvae eat the blood that is present in the adult fleas' feces, organic debris, the flea eggshells and other larvae. The larvae will not develop outdoors in areas that are exposed to sunlight; the larvae need cool shady areas where pets rest to develop. Indoors, development occurs in areas that are undisturbed and protected such as in carpeting, under furniture and along baseboards. The speed of development from larvae to pupae depends on temperature and humidity. Pupae have whitish cocoons that are about 0.5 centimeters long and can be found in the

soil, on vegetation, in carpeting, under furniture and on animal bedding. The adult fleas start to come out of pupae cocoons after spending about 8 days in them and are done emerging after 13 days under ideal conditions (72.5 ° F and a relative humidity of 78%). The adults can remain in the pupae in a sort of hibernation for up to 30 weeks at temperatures of 51.8 ° F and 75% humidity. Once the fleas emerge from the pupae cocoon, they're considered adults and start to feed on a host. The adult flea feeds on blood from the host and their feces produce a reddish-brown color that resembles rust when it is wetted down with water but looks like dirt on the host animal giving it its name, "flea dirt". The adult female flea starts to produce eggs 20 to 24 hours after her first meal and can produce 40 to 50 eggs per day.



Fleas use both thermal and visual clues to find host animals and newly emerged fleas can only survive a few days before needing a blood meal. In most homes the fleas will die off with 1 to 2 weeks if they cannot find a host animal for a blood meal. Fleas are the most common external parasite of dogs and cats in North America, however they are less common in areas such as the desert Southwest and the Rocky Mountain States because the humidity tends to remain below 50% in these areas. The most common way for an animal to come into contact with fleas is through coming into contact with recently emerged fleas from an infested environment, however fleas can move directly from one host animal to another. The most common symptom of fleas is itching, however there are other symptoms as well. Some of the other symptoms are blood loss due to the flea infestation and flea allergy dermatitis which is a hypersensitivity to a component of the fleas, salivary glands. Fleas can also transmit tapeworms to dogs and cats.

Fleas are diagnosed through a physical examination. Most commonly in the flea dirt is identified by combing the animal with a very fine-toothed flea comb and wetting down the material that is pulled off of the comb. However, fleas can occasionally be seen moving on the animal as well.

To treat fleas the easiest way either feed an oral flea and tick preventative product such as Nexgard® or to apply a topical preventative product such as Frontline®, Revolution® or Vectra® to the affected animals every two weeks for two months period. The topical flea and tick preventative cannot be applied if the animal has had a bath in the last 48 hours or if they will be exposed to large amounts of water within 48 hours. This is because the flea and tick preventatives use the oils that are present in the skin to disperse the product throughout the body. It is also very important to clean the environment where the animals live. To do this wash anything that can be washed such as bedding and clothing and vacuum things that cannot be washed such as carpeting and furniture. Once you are done vacuuming you will need to throw the bag from the vacuum away or empty out the vacuum canister, and to make sure that you remove these things from the house. It is necessary to clean the environment at least once a week for 3 to 4 weeks to ensure that the eggs as well as the adult fleas are removed from the environment.

Fleas are very easy to prevent by either giving an oral or applying a topical preventative product once monthly year-round to each animal in the household. It is recommended to treat the cats in the household even if they do not go outside because the dog could bring the fleas into the house and infest the cat. To deter fleas from the bedding of animals that stay outside you can place Cedar wood chips in the bedding.

Humans are not a preferred host animal for fleas however they can end up on humans for a short period of time and during this time they can take a blood meal resulting in flea bites to you. This is typically common in severe infestations.



Ticks

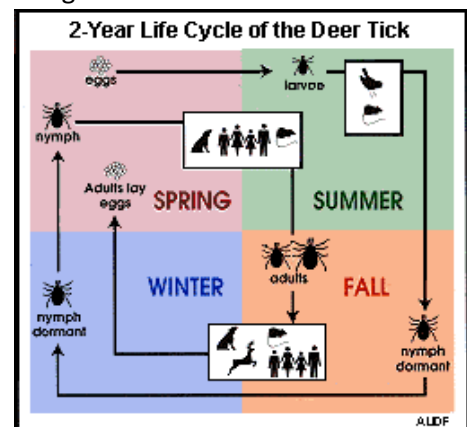


There are several different types of ticks, but they fall into 2 different categories either hard ticks (deer ticks) or soft ticks (dog ticks which are also known as wood ticks). There are four different life stages for ticks the egg, larva, nymph and adult. While all ticks go through these same four life stages, they go through them at different speeds depending on their species. Research is now showing that ticks are hardier than we had previously believed. They can become active after as few as three days above 32° F, because of this we are finding ticks on animals earlier in the year and even throughout the winter depending on the temperatures during that time. Ticks are normally not found in trees but in longer grass. This means that dogs, cats and even people can come into contact with ticks in their everyday activities. These activities can include taking your dog for a walk on the sidewalk or on a bike path if there is longer grass on the sides and your dog is playing in that grass.

Ticks can cause severe blood loss if there are enough of them taking blood meals on a host animal. As the tick gorges on blood they grow in size. An adult female deer tick can ingest 100 times her weight in blood resulting in a 100-fold growth in size. Irritation and itching typically occur where the tick is attached to the host animal. Ticks may also carry several different diseases such as Lyme disease, Anaplasmosis and Ehrlichiosis.

Ticks can be found throughout the United States and are most common in areas such as the northeastern, upper Midwest and western coastal states. The best way to diagnose an animal with ticks is by finding them on the animal. It is important to either remove them right away or to have them removed as soon as possible. The easiest way to remove a tick is to grasp as close to the skin of your pet as possible with the tweezers and pulling using a slow and steady pressure. Do not crush the tick, twist them, or jerk the tick out. It is very uncommon to leave the head of the tick in your pet if you remove the tick this way. It is recommended that if you do find ticks on your pet to have a 4DX heartworm blood test and tick borne disease panel done in 6 to 8 weeks to ensure that they were not exposed to any of the tick borne diseases. It is also a good practice to have your veterinarian do a 4DX test every year. If your pet is diagnosed with a tick borne disease a 28 day course of antibiotics will be prescribed.

Tick prevention is easy to accomplish with the use of an oral monthly preventative product such as Nexgard® or a topical product such as Frontline® or Vectra® year-round. If your dog frequents areas that are known to have a lot of ticks it would also be beneficial to have them vaccinated against Lyme disease every year.



While dogs cannot give you ticks, you can be exposed to ticks while being in the same areas as your pet. The best way to avoid this is to use repellent products and remove ticks as soon as they are found. Wearing light colored clothing allows spotting ticks easier.

If you have any further questions please feel free to contact us at (920) 668-6212 or send us an email at info@cgvet.com. You can also learn more about fleas and ticks by going to www.capcvet.org.

TICK ID

KNOW THEM, PREVENT THEM.

Blacklegged Tick (Deer Tick)
Image source: URI TickEncounter Resource Center

Enlarged View

larva nymph adult male adult female

(inches) 0 1/4" 1/2" 3/4" 1" 1 1/4" 1 1/2"

Approx. Size

nymph (1/32" - 1/16") adult male (1/8") engorged adult (up to 1/2")

American Dog Tick (Wood Tick)
Image source: Maine Medical Center Research Institute

Enlarged View

adult male adult female

Know your ticks

Three of at least 16 reported species of ticks found in Wisconsin.

SOURCE: Department of Entomology, University of Wisconsin-Madison

Lone star



Female ticks have a white dot or star on their back.



Approx. size

Wood (American dog)



One of the most common types of ticks in Wisconsin.



Approx. size

Deer (Blacklegged)



Deer ticks are known to transmit Lyme Disease.



Approx. size

JASON KLEIN - State Journal