

# This Preventable Pest Can Make Your Cat Sick to the Point of Death (Not Mosquitoes)

Can inflict your precious kitty with any of these 5 illnesses - all potentially fatal. One can be passed to human family members. Prevention is key to keeping your kitty and her humans healthy throughout this pesky season and beyond. What to know today.

Analysis by Dr. Karen Shaw Becker

## STORY AT-A-GLANCE

- Cats become sick from tick-borne illnesses, though not as often as dogs
- Tick-borne diseases that occur in cats include cytauxzoonosis, tularemia, haemobartonellosis, babesiosis, and ehrlichiosis
- Since tick-borne infections can be life threatening, prevention is key. If your cat goes outdoors, he should be under your direct supervision or within a secure outdoor enclosure
- Any cat with outdoor access should be checked for ticks each evening, especially during the warmer months of the year. It's also a good idea to apply a safe tick repellent or all-natural flea and tick collar made specifically for cats

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The warm weather is here, and so are parasites and other types of pests that bug our pets. Today I want to talk specifically about tick-borne diseases in cats. I've covered tick-borne illnesses in dogs quite extensively, but the same diseases in kitties are a whole different topic.

Ticks attach to hosts because they need to ingest animal blood to survive and develop from larvae to adulthood. Larvae need blood to become nymphs; nymphs need blood to mature into adulthood; and adult female ticks need blood in order to mate and lay eggs.

It is a tick in the nymph or adult stage of development that will, if given the chance, attach to a cat's body and begin feeding on blood. If the tick also happens to be carrying an infectious agent, it will be transmitted to the kitty, enter the circulatory system, and begin to rapidly reproduce.

The good news is that most ticks don't carry disease and most cats live their entire lives never acquiring a tick-related illness. Fortunately, kitties seem to be very aware of even the tiniest pests on their bodies, probably due to their hypersensitivity to changes in their environment. Often a cat will notice and remove a tick before it has a chance to attach.

However, with all that said, I decided to make this video because I get a lot of questions on the subject of ticks and cats, and on occasion, veterinarians do see tick-borne illnesses in feline patients.

## Cytauxzoonosis

There are a few diseases transmitted by ticks that can make your cat very sick — even to the point of death. One of the worst is feline cytauxzoonosis, also known as bobcat fever.

Cytauxzoonosis results from a blood parasite called *Cytauxzoon felis* that infects both the blood and tissues of cats. In a destructive process that takes about three weeks from the time of infection, the kitty will ultimately hemorrhage and die.

In the US, the natural host of *Cytauxzoon felis* is the bobcat, and the parasite does not cause the disease in bobcats. Lone Star ticks feed on the blood of bobcats, then drop off, molt to their next life stage, and attach to their next host. If the next host happens to be a domestic cat, a cytauxzoonosis infection can be the result.

The only way a cat can acquire cytauxzoonosis is through the bite of an infected tick that has fed on a bobcat, so fortunately, the disease is fairly rare. Cases of cytauxzoonosis have been reported in Arkansas, Florida, Georgia, Illinois, Kansas, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. Cats who spend time outdoors in the southeast and midwestern states are at greatest risk.

Cytauxzoonosis symptoms include depression, severe anemia, high fever, loss of appetite, dehydration, pale gums, lethargy, breathing difficulties, and jaundice, which is yellowing of the skin.

Sadly, the disease is often fatal, but if a treatment protocol is implemented early enough, some cats do pull through.

A relatively new treatment combines antimalarial drugs with an antibiotic and it has shown some promise. The drugs are given orally for about 10 days, along with supportive care. About 60% of infected kitties on this protocol will live.

Unfortunately, cats who recover from cytauxzoonosis may still carry the parasite and can suffer a recurrence of the infection.

## Tularemia

Another potentially deadly tick-borne disease in cats is tularemia, also known as rabbit fever. Tularemia is caused by the bacteria *Francisella tularensis*, which is carried by four species of North American ticks: the Rocky Mountain wood tick, the American Dog tick, the Pacific Coast tick, and the Lone Star tick.

Ticks become infected while feeding on infected animals or birds and can transmit the bacteria to another animal any time during the tick's two-year life cycle. Cats can also get tularemia when they prey on infected rabbits or rodents.

Signs of a tularemia infection in cats can range from no symptoms to mild illness with swollen lymph nodes and fever, to severe overwhelming infection and death. Symptoms can include abscesses at the site of the tick bite, mouth ulcers, GI ulcers, high fever, loss of appetite, lethargy, enlarged lymph nodes, eye and nose discharge, rash, and internal abscesses involving the spleen or liver.

Tularemia can be diagnosed with a blood test, providing the infection has been present long enough for the cat's body to make antibodies. Definitive diagnosis can be made by culturing the *F. tularensis* bacteria in a lab using discharges or tissues from the affected animal.

Unfortunately, most often tularemia isn't diagnosed until after a cat dies from it, so the best antibiotic to treat the infection hasn't yet been identified.

It's important to understand that tularemia is a zoonotic disease that can be transmitted to humans through a bite or scratch from an infected cat. Cases of tularemia have been reported throughout the US, but most have been in the midwestern states, particularly Oklahoma.

## **Haemobartonellosis**

Another potentially deadly tick-borne disease in cats is haemobartonellosis, also known as feline infectious anemia or feline hemotropic mycoplasmosis. This illness is more common than either cytauxzoonosis or tularemia, and it attacks the red blood cells that carry oxygen throughout a cat's body.

Haemobartonellosis in cats is usually caused by *Mycoplasma haemofelis*, formerly known as *Haemobartonella felis*, which belongs to a group of microorganisms called mycoplasma that live inside red blood cells.

Ticks and also fleas become infected with mycoplasma by feeding on an infected animal, and then they infect a cat when they attach to it. The mycoplasma can also be passed from an infected to a noninfected animal by a blood transfusion. Mother cats can infect their offspring through transplacental transmission. The disease can also be transmitted through cat bites.

Hemobartonellosis in cats can range from very mild and asymptomatic, to a slight anemia, to severe disease. Symptoms can include depression, loss of appetite, and dehydration. If the anemia is profound, it can cause pale mucous membranes (white gums), weakness, weight loss, accelerated heart and respiration rates, jaundice, and death, which is unfortunately a common sudden symptom.

Kitties with feline leukemia (FeLV) are more likely to have a severe form of haemobartonella infection. If your kitty is positive for haemobartonellosis, I recommend also checking for feline leukemia.

Antibiotics are typically given for three weeks to cats dealing with this infection. In kitties with a rapidly progressing form of the disease, hospitalization will be required, as well as a blood transfusion.

When left untreated, some kitties will die from a haemobartonella infection. Others recover, but can become carriers of the organism, causing the disease to recur when their bodies become stressed.

It's important to note that haemobartonellosis is an entirely different disease than feline bartonellosis, which is confusing because they sound very similar.

## **Babesiosis**

Babesiosis is another rare tick-borne disease in cats, caused by the *Babesia felis* parasite. Infections in kitties are thought to occur primarily through tick bites, but other routes of transmission include blood transfer from a dog or cat bite, blood transfusions, and across the placenta in pregnant female cats.

The infection takes hold about two weeks after exposure, but in many cases symptoms remain mild and the disease isn't diagnosed for months or even years. Babesiosis can cause both direct and immune-mediated hemolytic anemia.

Symptoms of infection can include lack of energy, loss of appetite, weight loss, pale mucous membranes, jaundice, and anemia. Traditional treatment for babesiosis in cats is a course of an antimalarial drug, sometimes coupled with an antibiotic, and supportive care. Blood transfusions may be required if the anemia is severe.

## **Ehrlichiosis**

Ehrlichiosis is another uncommon tick-borne disease in cats that is thought to be caused primarily by the rickettsial organisms *Ehrlichia canis* and *Ehrlichia risticii*.

Rickettsia organisms enter the cells of the body and act like parasites, eventually killing the cells. Ehrlichiosis has been reported in cats in the US, as well as in Europe, South America, Africa, and the Far East.

Symptoms of the disease can include lethargy, depression, loss of appetite, weight loss, vomiting and diarrhea, fever, pale mucous membranes, anemia, breathing difficulties, enlarged lymph nodes, swollen and inflamed joints, and discharge from the eyes.

Depending on the severity of clinical signs, treatment options may include outpatient care or in some cases, hospitalization. Antibiotic therapy is the mainstay of treatment for ehrlichiosis in cats. In severely ill patients, intravenous (IV) fluid therapy, blood transfusions, and other forms of supportive care may be indicated.

## **Preventing Tick-Borne Disease in Your Cat**

Since all tick-borne diseases have the potential to be fatal, I recommend not exposing your cat to ticks to the best of your ability. This can be accomplished by keeping your kitty inside, and if she goes outside, it should be under your direct supervision.

If you do allow your kitty outside, it should be for a walk with you on a harness and leash, or in a safe outdoor enclosure that she can't get out of — and other animals can't get into. During the warm summer months, it's important to brush your cat's coat regularly — at least daily if she's outside everyday — and search for ticks that might have attached to her body.

I let my own cats outside everyday under supervision. After the kitties are in for the evening, I do a tick check. If you discover a tick attached to your cat, you need to remove it with tweezers or a specially designed tick removal tool. It's important that you remove the entire tick, including the head, by applying steady pressure as you pull it out. Make sure to disinfect the area after you remove the tick.

The safest way to dispose of ticks is by dropping them into a bottle of alcohol and tightly sealing it before disposing of it. I also recommend that you wear gloves to prevent touching the tick directly, and wash your hands afterwards.

I'm not in favor of applying topical flea and tick chemical preventives or collars containing potentially toxic chemicals to any pet, but especially not cats due to their extreme sensitivity to many of these chemicals. And under no circumstances should you ever use a flea and tick product designed for dogs on your cat, as it can prove to be fatal.

If your cat ventures outside regularly, I recommend using a safe tick repellent such as geranium oil products designed to deter ticks on cats. You can also consider sprinkling your kitty with diatomaceous earth, avoiding the face and head. You can also use all-natural tick collars that are specifically made for cats.