

## Fast facts about parasites and dogs

- 1 It is common for a dog to become infected with an internal or external parasite at some point in his lifetime.<sup>1</sup>
- 2 Dogs are 50% more likely to get Lyme disease than humans.<sup>2</sup>
- 3 Lyme disease can be found in every U.S. state and Canadian province.<sup>2</sup>
- 4 Anaplasmosis is surpassing Lyme disease in some areas of North America.<sup>3</sup>
- 5 Ehrlichiosis may show no signs for years and may eventually cause severe illness if left untreated.
- 6 Heartworm infection rates remain unchanged over the past 10 years.<sup>3</sup>

## Learn more

Learn more about caring for your dog at any age at [pethealthnetwork.com/dog-health](http://pethealthnetwork.com/dog-health).

Check out more about your pet's regular checkups. Visit [pethealthnetwork.com/preventivecare](http://pethealthnetwork.com/preventivecare) to get more free information about partnering with your veterinarian to keep your pet healthy.



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## Parasites, Dogs, and Protecting Your Whole Family

## Parasites and dogs: top 5 FAQs

### Which parasites can my dog get?

Dogs are susceptible to fleas, ticks, and mosquitoes as well as some internal parasites, such as hookworms, roundworms, and whipworms.

### Can I get infections from my dog?

You and your family can become infected with parasites the same way your pets get them—by contact with infected ticks or with poop containing eggs or larvae.

### How can my dog be infected?

Dogs can be exposed to tick- and mosquito-borne infections in almost any location where mosquitoes, deer ticks, and other types of ticks can be found.

Some worms can be passed from mother to pup or from contact with poop containing parasite eggs and larvae.

### How are infections diagnosed?

Ask for simple screening tests from your veterinarian—you'll know right away whether your dog has been exposed to these infections and whether further testing and treatment are needed. Your veterinarian may ask for a poop sample to look for intestinal worms.

### Can my dog get infected and not show signs?

It's possible for your dog to be infected and show few or no signs of illness—pay close attention to subtle changes in your dog's behavior and screen him regularly for parasitic diseases. Early intervention is important for a lifetime of good health.

### References

1. Dog owners: overview. Pets & Parasites website. <http://www.petsandparasites.org/dog-owners/overview>. Accessed July 7, 2015.
2. Breitschwerdt E, Ford RB, Lappin M, Levy SA, Phillip M. Testing for ehrlichiosis and Lyme disease. *Compendium on Continuing Education for the Practicing Veterinarian*. 2001;23(4)(suppl).
3. Bowman D, Little SE, Lorentzen L, Shields J, Sullivan MP, Carlin EP. Prevalence and geographic distribution of *Dirofilaria immitis*, *Borrelia burgdorferi*, *Ehrlichia canis*, and *Anaplasma phagocytophilum* in dogs in the United States: results of a national clinic-based serologic survey. *Vet Parasitol*. 2009;160(1-2):138-148.

# 7 quick tips for protecting dogs and families

- 1 Pick up your dog's waste regularly, especially in places where both children and animals play.
- 2 Wash your hands thoroughly after picking up your dog's waste and also after exposure to soil (gardening), sandboxes, and raw meat.
- 3 Cover sandboxes and play areas to prevent wildlife and strays from contaminating these areas.
- 4 Do not allow children to put dirt in their mouths.
- 5 Check your dog and your family for ticks regularly. If you find a tick, remove it right away.
- 6 Have your dog tested for intestinal parasites and parasitic infections annually (at a minimum). Don't forget to bring a fresh poop sample to the visit.
- 7 Talk with your veterinarian about parasite infection risks in your area and your options for effective year-round prevention.

# Your guide to understanding parasitic diseases in dogs

**IMPORTANT:** No prevention is 100% effective. Test your dog every year.



	Lyme disease	Anaplasmosis	Ehrlichiosis	Heartworm disease	Hookworm	Roundworm	Whipworm	
<b>How does my dog get infected?</b>	Deer tick or black-legged tick ( <i>Ixodes</i> spp.) carries bacteria and bites dogs, spreading infection.		Lone star tick ( <i>Amblyomma americanum</i> ) or brown dog tick ( <i>Rhipicephalus sanguineus</i> ) carries bacteria and bites dog, spreading infection.	Mosquito transfers worm larvae from infected dog to your dog; larvae develop into worms that live in the heart and its vessels.	Ingestion of parasite eggs or rodents or direct contact with parasite larvae in contaminated environment. Also spread through mother's milk and placenta.		Ingestion of parasite eggs from a contaminated environment (soil, kennels, dog parks, etc.)	
<b>Most common signs of infection</b>	May not show any signs, or: <ul style="list-style-type: none"> <li>• Lameness</li> <li>• Fever</li> <li>• Swollen joints</li> <li>• Kidney failure</li> <li>• "Not himself"</li> <li>• Loss of appetite</li> </ul>	May not show any signs, or: <ul style="list-style-type: none"> <li>• Lack of energy</li> <li>• High fever</li> <li>• Swollen, very painful joints</li> <li>• Loss of appetite</li> </ul>	From mild to severe: <ul style="list-style-type: none"> <li>• Loss of appetite</li> <li>• Depression</li> <li>• Fever</li> <li>• Painful joints</li> <li>• Bloody nose</li> <li>• Pale gums</li> </ul>	No signs at first, then: <ul style="list-style-type: none"> <li>• Mild, persistent cough</li> <li>• Reluctance to move or exercise</li> <li>• Tiredness after moderate exercise</li> <li>• Reduced appetite</li> <li>• Weight loss</li> </ul>	May not show any signs, or: <ul style="list-style-type: none"> <li>• Diarrhea</li> <li>• Pale gums</li> <li>• Poor health</li> <li>• Poor hair quality</li> </ul>	May not show any signs, or: <ul style="list-style-type: none"> <li>• Diarrhea</li> <li>• Pot-bellied appearance</li> <li>• Poor hair quality</li> <li>• Cough</li> <li>• Vomiting</li> </ul>	May not show any signs, or: <ul style="list-style-type: none"> <li>• Intermittent diarrhea</li> <li>• Loose poop</li> <li>• Blood in poop</li> </ul>	
<b>Disease progression if left untreated</b>	Damaged joints, fatal kidney disease (rare), neurological signs (rare)		Very low numbers of platelets and white blood cells, chronic joint pain, neurological signs (rare)	Permanent blindness, autoimmune diseases, bleeding complications, death	Heart failure, lung disease, sudden death	Intestinal inflammation, failure to grow/thrive, weight loss, severe anemia	Intestinal inflammation, failure to grow/thrive, weight loss	Chronic bloody diarrhea, dehydration, weight loss and anemia
<b>Coinfection</b>	Coinfection with Lyme disease and anaplasmosis is possible. In addition, it's possible for your dog to become infected with any combination of parasitic diseases—including those not listed here.				Roundworm, whipworm	Hookworm, whipworm	Hookworm, roundworm	
<b>Diagnosis</b>	Simple blood test: IDEXX SNAP® 4Dx® Plus Test (can detect six infections in one blood sample in less than 10 minutes) Other tests: Complete blood count, chemistry profile, urinalysis, other special tests (depending on initial findings and clinical signs)				Test poop sample for presence of parasites (eggs, larvae, antigen)			
<b>Treatment</b>	Antibiotics: doxycycline, tetracycline	Antibiotics: doxycycline, tetracycline	Antibiotics: doxycycline, tetracycline	Adulticides (kills adult heartworms), monthly products <small>Source: American Heartworm Society</small>	Deworming medication			
<b>Prognosis</b>	If caught and treated early, the outcome is usually very good for a full recovery from symptoms. Some of these infections cannot be cured completely, but early intervention usually provides the best prognosis.				Good	Good	Good	
<b>Vaccine available?</b>	Yes	No	No	No	No	No	No	
<b>Other prevention</b>	Daily tick inspection and removal, and the use of oral or topical preventatives. Ask your vet for more information.			Oral and topical preventatives	Monthly parasite control products (available from your veterinarian), often included in your monthly heartworm preventatives. Also remember to pick up your dog's waste regularly.			

