

Source: American Veterinary Dental Society

PERIODONTAL DISEASE

Periodontal disease occurs when bacteria from the mouth form on the teeth in a substance called plaque. The plaque makes it's way under the gumline and sets in motion a vicious circle, which can eventually lead to tooth loss. The bacteria in the subgingival plaque will secrete toxins. These toxins damage the periodontal tissues and can decrease the attachment. However, the bacteria will also elicit an inflammatory response from the animal's gingival tissues. White blood cells and other inflammatory mediators will leak out of the periodontal tissues and into the periodontal space (between the gum or bone and the tooth). The white blood cells will release their enzymes to destroy the bacterial invaders, but will also damage the attachment of the tooth. As this progresses, the pocket will get deeper and deeper. This will weaken the bone in the area, and if it is in the lower jaw it can weaken it to the point of causing a *pathologic fracture*.

The inflammation in the gingiva that allows the body's defenses to attack the invaders also allows those invaders to gain access to the body. The bacteria from the mouth can enter the bloodstream and be carried throughout the body. Studies have shown that these bacteria will be filtered out by the kidney and liver, and can cause microabscesses on these organs. This leads to a decrease in function of these vital organs over time. In addition, it has been suggested that these bacteria can become attached to the heart valves and cause a disease called endocarditis. In addition, the body must deal with these bacteria on a daily basis, leading to a state of chronic disease and a weakened immune system, making the body prone to other diseases.



HOW CAN I PREVENT OR CORRECT GUM AND TOOTH DISEASE?

SCHEDULE A DENTAL CLEANING WITH US AT LEAST ONCE YEARLY, ALONG WITH HOME DENTAL CARE WITH ANIMAL TOOTHPASTE...

WHAT'S INVOLVED IN A DENTAL CLEANING?



- REMOVAL OF CALCULUS AND PLAQUE WITH AN ULTRASONIC SCALER
- COMPLETE EXAMINATION OF GUMS AND TEETH TO PREVENT TOOTH AND BONE LOSS
- TEETH POLISHING
- FLUORIDE TREATMENT

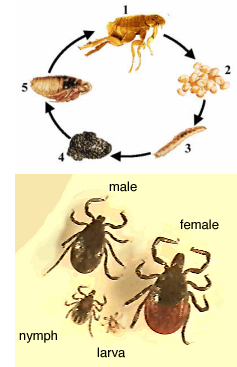
8851 Adams Avenue
Huntington Beach, CA 92646
(in the Petco and Gold's Gym Shopping Center)

Kill Fleas and Ticks, While Preventing Future Outbreaks

Unfortunately, flea problems are widespread. Once a home becomes infested, control can be difficult, time-consuming and expensive. A flea-infested dog or cat can introduce hundreds of new flea eggs into the home each day. There are more than 200 species of fleas in this country and they will feed on anyone in the household cat, dog or human. These insects will most likely choose a pet, whose fur provides warm camouflage for their breeding ground. By mid- to late summer, pet owners often find themselves fighting a losing battle against established flea populations that are enormous.

The flea life cycle has four stages: eggs, larvae, pupae, and adults. Female fleas lay as many as 50 eggs a day, starting a life cycle that can be completed in as little as three weeks, depending on temperature and humidity. The eggs hatch into larvae, which feed on "flea dirt," excrement of partially digested blood. Larvae grow and molt twice, then spin cocoons, where they grow to pupae and then adults. The adult remains in the cocoon until vibrations indicate a host is nearby. This waiting can extend the life cycle. It also explains why large numbers of fleas often are seen when an empty building is reoccupied. Six-legged adults emerge and attach to a host to feed and breed, beginning the cycle all over again.

Pet owners can break the cycle of flea development and prevent future generations by killing the eggs as they are laid on the pet, or by eliminating the egg-laying adults. The easiest way to do this is to take action before flea problems get out of control.



Treatment of Premises

If you neglect to treat the pet's environment (the premises), you will miss more than 90% of the developing flea population -- the eggs, larvae and pupae. If the pet spends time indoors, the *interior* of the home should also be treated. Before treatment, the pet owner should:

- 1) Remove all toys, clothing, and stored items from floors, under beds, and in closets. This step is essential so that all areas will be accessible for treatment.
- 2) Remove pet food and water dishes, cover fish tanks, and disconnect their aerators.
- 3) Wash, dry-clean or destroy all pet bedding.
- 4) Vacuum! vacuuming removes many of the eggs, larvae and pupae developing within the home. Vacuuming also stimulates preadult fleas to emerge sooner from their insecticide-resistant cocoons, thus hastening their contact with insecticide residues in the carpet. By raising the nap of the carpet, vacuuming improves the insecticide's penetration down to the base of the carpet fibers where the developing fleas live. Vacuum thoroughly, especially in areas where pets rest or sleep. Don't forget to vacuum along edges of rooms and beneath furniture, cushions, beds, and throw rugs. After vacuuming, seal the vacuum bag in a garbage bag and discard it in an outdoor trash container.

HEARTWORMS AND INTESTINAL PARASITES (HOOKWORMS, ROUNDWORMS AND WHIPWORMS): RISKS AND TREATMENT

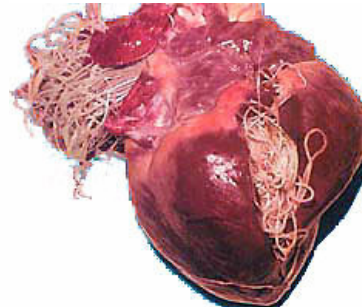
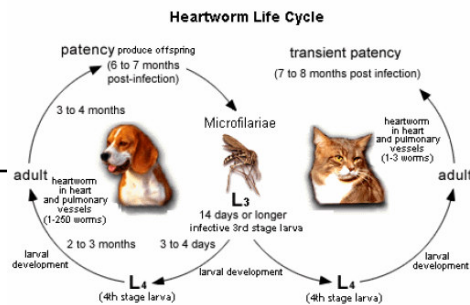
Sixty percent of dogs displaced by Hurricane Katrina are likely to be infested with heartworms, estimates Dr. Tom Nelson, president of the American Heartworm Society.

Some veterinarians worry that heartworm disease could spread to nonendemic areas such as the Pacific Northwest, California, and the Southwest, where many of these animals now live.

The adult worms live in the heart and lungs and their microscopic offspring, the microfilaria, are in the bloodstream which eventually reach the dog's heart. Once in the dog's heart, the worms grow and cause significant damage to the heart, lungs and other vital organs. The adult heartworm (*Dirofilaria immitis*) is a fairly large worm (up to 14 inches long) that, in adulthood, lives in the heart and pulmonary arteries. It swims into an artery, where it is massaged and nourished by the blood coursing past it. In the pulmonary arteries, the worm's presence generates a strong inflammatory response and a tendency for blood to inappropriately clot. If enough worms are present, the heart must work extra hard to pump blood through the worm-filled arteries.

A blood test looks for antigens (foreign proteins) given off by the heartworms. This test can reveal the presence of heartworms that the filter test might miss because the heartworms aren't reproducing. The chief issue in the diagnosis of heartworm disease centers around the detection of heartworm infection. Using genetic engineering, it has become possible to create extremely sensitive tests capable of detecting tiny pieces of adult heartworm skin circulating in the blood. In this way, very small numbers of adult worms can be detected, even single worm infections. This kind of testing has made it possible to detect infections in which no microfilaria are present: the "Occult Infections." Most of these immunological tests are available as test kits which can be performed in the veterinarian's office while you wait.

What do I do to prevent these parasites? You can simply put your pet on a monthly dose of Advantage-Multi for fleas and heartworm prevention, while at the same time preventing intestinal parasites (hookworms, roundworms and whipworms), or you can use Heartgard Plus in combination with Frontline Plus for the same protection in addition to tick prevention.



8851 Adams Avenue
Huntington Beach, CA 92646
(in the Petco and Gold's Gym Shopping Center)

Source: Centers for Disease Control and Prevention (www.cdc.com)

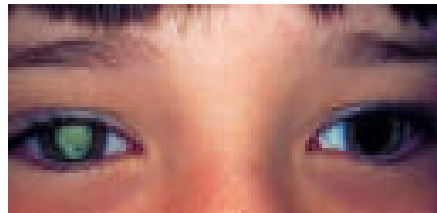
Parasites and the Risk to Humans...

...Most pet owners do not know that their pets may carry worms capable of infecting people. Therefore, practicing veterinarians can provide an important public service by recommending regular fecal examinations, providing well-timed "deworming" treatments, counseling clients on potential public health hazards, and advising them on any precautionary measures that may be undertaken. Veterinarians are in an ideal position to provide pet owners with this service because of their access to the pet-owning public, their knowledge and training, and their role in the human-animal bond.^{1,2...}

Harvey JB, Roberts JM, Schantz PM. Survey of veterinarians' recommendations for the treatment and control of intestinal parasites in dogs: Public health implications. *J Am Vet Med Assoc* 1991;199:702-7.

Barriga OO. Rational control of canine toxocariasis by the veterinary practitioner. *J Am Vet Med Assoc* 1991;198:216-21.

Parasite (roundworm)
larva in a child's eye →



Did you know the following about parasites?

- Treatment prevents 5 different types of parasites
- Parasites are contractible by humans
- Eggs hatch in the human intestinal tract and can travel to the eyes and brain where serious illnesses can result
- Worms do not have a season. They are present year-round without treatment

8851 Adams Avenue
Huntington Beach, CA 92646
(in the Petco and Gold's Gym Shopping Center)