

Protecting your pet and your home from fleas...

Fleas are the most common parasite of companion animals. *Ctenocephalides felix*, the “cat flea,” is the species of flea that is most commonly found on our cats and dogs, and in our homes; they represent 85-95% of all household fleas found in North America. Understanding the best methods to rid your home and your animals of this parasite requires an understanding of its life cycle.

The life cycle of the flea:

The adult female flea lays 40 to 50 eggs per day in the hair coat. These eggs are designed to fall off of the host and into the environment; your house, car, yard. The eggs hatch in 1 to 10 days to become larvae. 5 to 11 days later these larvae spin cocoons (often within the carpet fibers, cracks in flooring, under furniture cushions or outdoors) for pupation. Pupae are highly resistant and can withstand freezing, desiccation, and insecticides. They can lie dormant for many months until they are stimulated to emerge from the cocoon by the potential new host through vibration, warming, moisture or increased carbon dioxide. These new adult fleas begin feeding within hours of finding a dog or cat. It is estimated that at any given time only 1% of a population of fleas is in the adult stage. About 14% are in the pupal stage, 35% are in the larval stage, and 50% are in the egg stage¹. With this in mind, we can fine-tune our flea control efforts. In order to control flea problems, it is necessary to treat not only your cat or dog, but also the indoor and outdoor environments.

Treating the Environment:

Outdoor environment

- Keep grass short and rake leaves to prevent piles where non-adult stages accumulate.
- Apply a mixture of water and food-grade diatomaceous earth (a calcium dust ground from single-cell ocean organisms) to your lawn, walkways and planting beds every other month during flea season. This is a desiccant that kills adults and flea larvae. Take care not to inhale this dust when applying as it can irritate the lungs.
- Beneficial nematodes are tiny round worms that eat flea larvae and pupae and can be incorporated into your garden and lawn. They can be purchased at most garden supply stores.

Indoor environment

- Wash floors frequently in an effort to remove flea eggs from cracks.
- Remove area rugs during flea season and vacuum carpet frequently. Seal and dispose of the vacuum bag (or freeze in between uses) to prevent reinfestation.
- Wash animal bedding at least once a week in hot water and a mild detergent.

Treating the Pet:

- Regularly comb your pet with a flea comb. This is not sufficient in and of itself to control flea populations, but it will tell you if your flea program is effective. Comb around the animal's tail and face and look for adult fleas, eggs (white specks), and flea feces (black specks). Drop anything you find in a glass of water to drown the pests.
- Bathe your dog regularly during flea season using a gentle shampoo.
- Keep your dog and cat as healthy as possible. A high quality healthy diet, regular exercise, low stress and a strong immune system are the best forms of parasite prevention.

¹ Dudley, Kathleen. *Whole Dog Journal*. March 2002. Page 8.

Flea products:

Often we will have to resort to prescription medications to completely resolve a flea infestation. We have carefully chosen products that we feel are safe and effective when used appropriately and as directed. Following is a description of each of these products and how they work.

For DOGS:

- ***Comfortis® (spinosad) from Eli Lilly;*** This monthly prescription tablet for fleas represents a completely new class of drugs in flea control. It is available for use on puppies and dogs 14 weeks of age or older and is available in 5 different sized flavored (soy and pork) chewable tablets. It is meant to be used once a month. It starts to kill adult fleas in 30 minutes and is 100% effective in 4 hours. And best of all, it's very safe. We have found it to have very few adverse reactions, the most frequent of which is vomiting after administration.

For CATS and DOGS:

- ***Program® (Lufenuron) from Novartis;*** This prescription drug is available as a once a month flavored chewable (soy and pork) pill or oral liquid suspension to be given with a full meal. Female fleas that feed on pets treated with lufenuron produce sterile eggs. The product does not kill adult fleas. It is a very easy way to break the life cycle but pets remain fully susceptible to the emergence of any fleas from pupa already present in the environment. Therefore, 4 to 7 months may pass before the flea free state is reached. In order to stop the life cycle, every animal in the patient's environment must receive lufenuron or another insect growth regulator. Pets should be treated for fleas with an adult flea-killing product during the first few weeks of starting Program®.
- ***Capstar® (nitenpyram) from Novartis;*** This is a prescription tablet for dogs and cats as young as 4 weeks of age. It offers extremely rapid and complete killing of adult fleas on the pets after administration. It can safely be used as often as once per day, whenever you see fleas on your pet. This is designed to be used in combination with Program® to quickly kill adult fleas when these slower products are being used for long-term control. It can also be used when the pet has visited a flea-infested environment for rapid protection.

For CATS:

- ***Advantage® (imidacloprid) from Bayer;*** In some cases topical control is necessary for cats, especially those cats with flea allergic disease. This product kills fleas in about 8 hours. 100% killing can be maintained for at least two weeks making it a very effective product when complete control of fleas is necessary for the health and comfort of your cat.