



How to Control Fleas

Recommendations for Flea Control for Your Pet and Your Pets Environment

Flea infestation is the most common ectoparasitic condition of dogs and cats in North America. The most common flea species associated with both dogs and cats is *C. felis felis*, the "cat flea". Flea control requires treating your pet and your pet's environment. Successful flea control requires understanding the life cycle of the flea. The following information will guide you.

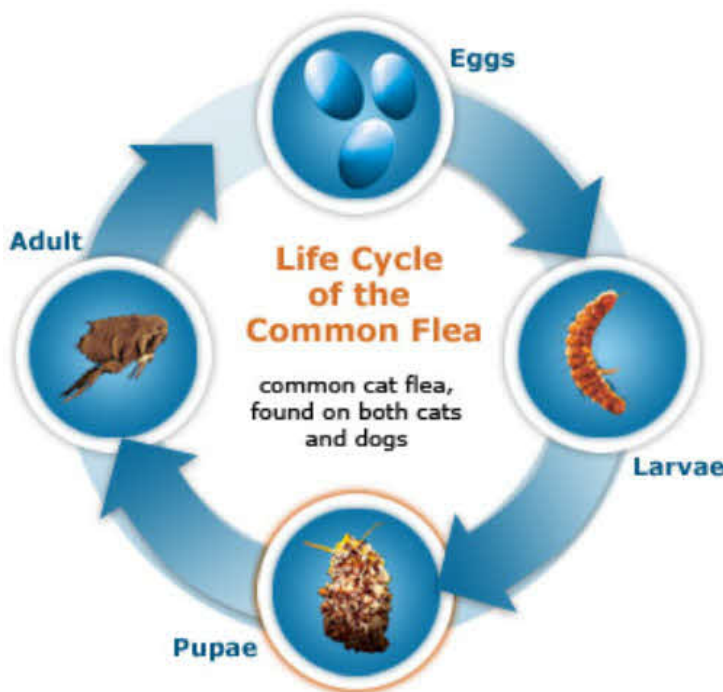
I. UNDERSTANDING THE FLEA

The first step in winning the battle against fleas is basic awareness of the flea life cycle in order to know what product or combination of products you may need.

1. Flea Survival

Best conditions for survival are high humidity (70% or higher), and moderate temperature (65F to 80F). Outdoors flea development most likely occurs in shaded, moist areas. Fleas can survive mild winters, but once established indoors year-round control may be necessary. Some stages of the flea life cycle can lie dormant for up to one year

2. Flea Life Cycle



Stage 1 The egg. Females can lay from 3 to 50 eggs per day. Eggs hatch in 1 to 10 days.

Stage 2 The larva. Small wormlike larvae emerge from the egg. The larval stage usually last 5 to 11 days. Larvae are free living and feed on organic debris and adult flea feces. They avoid direct sunlight and move deep under grass or into carpet fibers. They will undergo two molts before developing into the third stage.

Stage 3 The pupa. Flea larvae molt and spin a cocoon (pupae). Pupae are highly resistant to insecticides and can survive freezing temperatures or dry conditions. Pupae can lie dormant from seven days to one year. Once the pupa has fully developed the preemerged adult flea is stimulated to emerge from the cocoon into the fourth stage.

Stage 4 is the adult. Adult fleas that emerge from the pupal cocoon spend most of the time on the pet because they die within 2 to 3 days without a blood meal. Newly emerged fleas in car pets and outdoors will often bite humans before finding their preferred host. Once on a host the flea will initiate feeding within seconds and mating occurs in the first 8 to 24 hours. Most females will have mated by 34 hours and begin egg production within 36 to 48 hours. The eggs are laid on the host and readily fall off anywhere the pet has access. During feeding female fleas excrete large quantities of incompletely digested blood which dries within minutes into reddish-black fecal pellets or "flea dirt". This "flea dirt" falls off the host where it is essential food for the larvae. The entire life cycle of the flea can be completed in as little as 12 to 14 days or can be prolonged up to almost 180 days, depending on temperature and humidity.



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II. FLEA CONTROL

A complete flea control program must involve treatment of the infested pet and that pet's environment. Flea eggs will be deposited any place the pet has access. Therefore, places where the pet spends most of its time will have the greatest number of eggs. This is where control should be concentrated. The objectives of environmental control should be to eliminate newly emerged fleas, prevent the development of immature life cycle stages and to provide for continual control of emerging fleas.

1. Treating the House

Mechanical Control - Before treating the home mechanical, control measures should be employed. Careful observation of the pet will reveal where the fleas are most concentrated. These areas will include where the pet sleeps or lounges, such as on sofas, chairs, rugs, under tables, etc. Control should include washing the pet's blankets, rugs, and pet carrier. Areas where the pet rests should be vacuumed thoroughly to help remove flea eggs and larvae. Cushions from chairs and sofas should be removed and vacuumed and special attention should be given to the crevices in the sofa or chair. Regular use of a vacuum cleaner with a beater bar works best and carpets should be vacuumed frequently. Vacuuming not only removes a number of flea eggs and larvae but it also stimulates pre-emerged adult fleas to emerge from cocoons. The newly emerged adults are now on top of the carpet where they are susceptible to insecticidal application. Vacuum cleaner bags should be removed and discarded to prevent reinfestation by fleas that can be developing in the bag.

Yard Care - Outdoor flea control may also be necessary if the pet spends a large amount of time outdoors. The largest number of fleas and flea eggs are most likely found in shaded moist areas. Removing leaf litter, grass clippings, etc. will allow the soil to dry. Direct sunlight is not conducive to flea development.

Insecticides - For those homes with active infestations on pets and in their environment insecticides directed against adult fleas may be necessary. For severe cases it may take three to four months to eliminate fleas.

2. Treating the pet

Frontline Spray/TOPSPOT - This is a product that kills fleas, flea eggs and ticks. It is safe for puppies and kittens 8 weeks and older. Its effectiveness lasts for 30 days, or more, so you only need to treat your pet once a month, or in some cases every two to three months. It is not affected by water. However, you should not shampoo two days before or after applying Frontline. It works with the subcutaneous fat layer of your pet's skin and if the pet has been bathed recently the skin may be too dry for the Frontline to be effective. Frontline takes 24 to 48 hours to start working. This product is available only from veterinarians. Frontline comes in a spray bottle or in a Topspot application that is easy to use. **Please follow the directions. Frontline is the most effective method of killing fleas available at this time.**

Shampoo - For flea problems with **nursing** kittens or puppies a pyrethrin-based shampoo can be used. Combing with a flea comb after bathing will also help remove fleas. All bedding materials should be removed and replaced.

If your pet shows any of the following signs:

Drooling, Staggering, Diarrhea or Vomiting,

Call our office at 333-3847