

What You  
and Your  
Family  
Should Know  
About...

# FLEAS



## How Do I Know If My Pet Has Fleas???

You may find live fleas on your pet—they are black or brownish colored, wingless, oval-shaped, shiny insects that jump

You may find flea "dirt" on your pet — this is black debris in your pet's fur or surroundings that looks like specks of dirt or small "curly-q's". If this debris gets wet from a bath or if placed on a wet white cloth, it will turn into red or brown fluid because flea "dirt" is actually flea feces, which is composed of dried blood.

## How Does My Pet Get Fleas???

Fleas get onto your pet after they have matured from eggs left in an indoor or outdoor environment.

**\*\*\*Fleas do not jump from another animal onto your pet — they live their life on one animal host until they die. This means that your pet CANNOT "get" adult fleas from another pet; he/she can only get adult fleas from eggs that mature into adults in the environment.**

The most common carriers of flea eggs in the outdoors (besides infested cats and dogs) are opossums!

## What is the Life of a Flea Like???

Flea eggs fall off of a host animal and are deposited in the environment.

The eggs mature into larvae, then into pupae, and then into adults.

The average time that it takes for a flea to mature from an egg to an adult flea is 3-8 weeks, although fleas in the pupae stage may stay dormant for up to 300 days if the temperature is mild and there is no animal (human or otherwise) in the area to stimulate its' growth. Flea pupae mature in response to heat and carbon dioxide released by living animals.

Adult fleas jump onto an available host animal and begin feeding almost immediately.

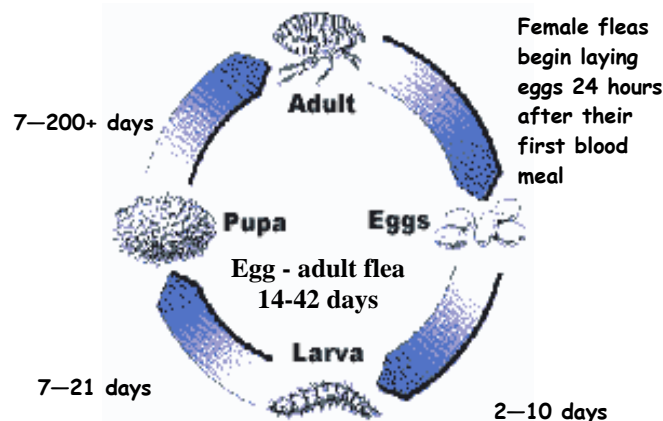
Male fleas feed for short periods of time and spend most of their time mating.

Female fleas feed almost constantly and must remain feeding in order to produce eggs, which they do as soon as 24 hours after first biting a host animal.

**ONE** adult female flea can produce **50-60** eggs per day while she is feeding.

These eggs are laid on the fur of the host animal and fall off during the animal's natural movements. And, thus, the cycle begins again.

## The Flea Life Cycle



**\*\*\* Adult fleas only represent 1% of the total flea population!\*\*\***

## **What Do I Do if My Pet Has Fleas???**

If your pet is heavily infested when you first discover the fleas, you may want to bathe and/or comb your pet to manually remove many of the fleas. Mild dishwashing detergent or "flea" shampoos may be very effective at removing many fleas, and the fleas will die quickly once they are off your pet.

**\*\*It is important to know that if you bathe your pet, you should not use any topical flea treatments for at least 48 hours.**

If your pet is not heavily infested, you may want to start with a topical flea treatment (to be described later on).

Resist the urge to confine your pet to a "safe" area of the premises to prevent fleas from getting into the house — several flea treatments also help to kill immature fleas in the environment, so you'll want to let your pet go to all its' usual areas of the house and yard.

The next step is treating your pet's environment.

Considering the fact that fleas start reproducing 24 hours after biting a host, you can be guaranteed that you already have flea eggs in your pet's environment.

It is unlikely that you have found the first 2 or 3 fleas that have bitten your pet, so the fleas your pet has now came from eggs laid in the environment 3-8 weeks ago.

Once the first female flea began laying eggs on your pet's coat, your pet has acted like a "salt shaker", leaving eggs behind wherever he/she has been. Therefore, besides directly treating the fleas that are on your pet, it is a good idea to do at least basic treatment of your pet's surroundings to prevent eggs from maturing and hatching into adults that would re-infect this pet, or other pets.

Basic measures would be vacuuming or steam-cleaning the areas where your pet spends time in the house (and make sure you dispose of the contents of the vacuum in a sealed bag or container!).

If you or your pet is extremely sensitive to flea bites, you may want to use a flea "bomb" or other services by an exterminator to treat the eggs and immature fleas in your house.

There are also an assortment of treatments for your yard and home exterior — just be sure to follow all safety recommendations to prevent harm to those that go into treated areas.

Lastly, treat **all** other pets ("salt-shakers") that could be leaving behind eggs to further infect this pet!!!

## **What Are Topical Flea Treatments and What do They Do???**

Topical flea treatments are oil-based solutions that are applied monthly to your pet's skin. Once they are applied to the skin of the pet, they mix with the oils on the skin and spread throughout the surface as the pet moves around.

All Topical flea products are designed to kill adult fleas and most also prevent flea eggs from maturing into adult fleas.

## **What are the Most Common Topical Flea Treatments and What are the Differences???**

### **Frontline Plus®**

This product contains one chemical (fipronil) that kills the adult fleas by direct contact, and another (methoprene) that prevents any eggs laid by fleas on that pet from maturing.

### **Advantage® and K9 Advantix®**

These products contain one chemical (imidocloprid) that kills both adult fleas and flea larvae by direct contact with the treated pet or by contact with skin cells and hair shed into the environment.

K9 Advantix® also contains a chemical (permethrin) that repels and kills ticks and mosquitoes, but ticks are another discussion.

### **Promeris®**

The cat and dog products both contain a chemical (metaflumizone) that kills adult fleas.

The dog product contains an additional chemical (amitraz) that kills ticks and other parasites. Because of the unpleasant smell of amitraz alone, a eucalyptus scent has been added, which may bother some people with smell sensitivity. Promeris® claims to have potential extended coverage for fleas (up to 7 weeks, possibly), but is still recommended to be applied monthly for optimal control of fleas.

## **How Well do Topical Flea Treatments Work???**

Frontline Plus®, Advantage®, K9 Advantix®, and Promeris® are all capable of killing all fleas on a pet within the first 24 hours after each monthly application.

They also continue to kill all new fleas that jump onto the pet for 30 days.

**Despite the claims, however, the effectiveness has been proven to decrease as the month progresses, so that not all fleas are killed within 24 hours toward the end of the month.**

**\*\*This means that some fleas will be able to lay eggs on a treated pet during the end of the month, which could allow for further infestation, depending on the environment and the product used.**

If the product you use is able to kill eggs/larvae/pupae or at least prevent them from hatching, the product should still prevent further infection from the pet's environment.

Other factors that can cause a product to lose its' effectiveness as the month progresses are over-bathing and swimming or improper administration of the initial dose.

### **The Bottom Line:**

**They all work well but all have limitations.**

**You should expect it to take 3-8 weeks to get rid of a new flea "problem"**

**In order to get rid of all the fleas in your environment, you MUST treat ALL the pets in your environment.**

## What is Flea Allergy and What Causes It???

"Flea allergy" refers to an exaggerated physical response in some pets to flea bites. This allergy is seen in both cats and dogs.

Flea allergy reactions cause the skin to show various degrees of inflammation, or redness, and may also include small bumps or scabs

Flea allergy reactions are usually found in areas of the body where fleas prefer to feed, such as the head, neck, armpits, groin, backs of the legs, and the lower back. Some pets develop reactions over their entire body, however.

"Flea Allergy" skin reactions were previously believed to be potentially caused by a single flea bite, but recent research suggests that this is not true.

Unfortunately, NO flea product has been shown to be 100% effective in killing all fleas before they are able to feed.

Based on evidence that many flea-allergic animals are able to be symptom-free when put on regular flea treatment regimens, it has been suggested that flea allergy reactions are most likely caused by prolonged feeding by one flea or a high load of salivary protein injected into the pet during feeding.

If regular flea treatment is not enough to control allergic reactions in your pet, let one of our doctors know so that we may be able to recommend other environmental or even oral medications to help the problem.

**\*\*Much of this information was gathered from a recent educational meeting featuring Michael Dryden, DVM, Ph.D., professor at the College of Veterinary Medicine at Kansas State University. His department at Kansas State has been involved in the rigorous testing of almost all flea products that have been or are now on the market, including Advantage, K9 Advantix, and Frontline Plus.**