

Flea Treatment and Prevention

Fleas are tiny, wingless insects that infest animals and birds to feed on the host's blood. **They are the most common ectoparasite of dogs and cats.** The adult fleas are found on a host animal with the immature stages located in the environment around the host. Fleas are not species specific so they readily infest dogs, cats and will even feed on humans. They can be very persistent, annoying pests with potentially long life cycles. There are many effective flea products on the market, but knowing how best to use them is key in eliminating and preventing flea infestations.

Flea Life Cycle

Females can lay as many as 40-50 eggs per days and more than 2,000 eggs in her lifetime. Microscopic eggs are laid on the host and fall off into the environment where they remain until the conditions are right to hatch into larvae. **The larvae do not like bright lights and will burrow deeper into your carpet or to shaded areas (like under your couch) when exposed to bright light.** The larva will eventually move to an undisturbed site to produce a protective cocoon (Pupa). The pupae develop into the adult fleas and are the hardest part of the life cycle to kill.

A hatched flea is capable of immediately jumping onto your pet can can jump as high as 13 inches. Despite common belief, fleas prefer to remain on one host and do NOT like to jump from host to host. **Humans are not ideal hosts for fleas.** Fleas may bite humans but will wait for a preferred host (such as a dog, cat, raccoon, etc.) to permanently infest. The life cycle of a flea generally takes 21-28 days to complete but can range from 12-180 days. **Because fleas can take a long time to go through their life cycle, 3 months of treatment for a flea infestation is recommended to fully eliminate all fleas.**

Illnesses Potentially Caused By Fleas

Besides being a nuisance, fleas can cause a variety of illnesses in your pet and possibly you. **These illnesses include Flea Allergy Dermatitis, Flea-Bite Anemia, and Tapeworm infestation.** The most common is Flea Allergy Dermatitis. This is when you or your pet has an allergic skin reaction to the fleas' saliva. This is seen as severe itching in response to even a couple of fleas and is commonly followed by a secondary bacterial infection. A severe infestation may result in Flea-Bite Anemia due to the large amount of blood being consumed in a short period of time. Adult female fleas can ingest up to 15 times their body weight in blood daily. The tapeworms are also transmitted by fleas. The immature form of the tapeworm is found in intermediate hosts, fleas and small mammals. Your pet frequently ingests fleas through normal grooming and biting at their itchy skin. The ingestion of the immature tapeworm with the flea allows the tapeworms to mature and infest your pet. **Fleas can also transmit the bacteria responsible for Cat Scratch Fever to cats.** Once a cat carries the bacteria, a simple scratch can be enough to cause Cat Scratch Fever in humans. Although these illnesses are all treatable, a flea infestation can be frustrating enough without having to deal with any of these complications as well.

How do I know if my pet has fleas?

The main indication of a flea infestation is itching. Your pet will suddenly start itching more than normal, mainly around the neck and tail head areas. Every pet responds to a flea infestation differently and will therefore have different levels of itchiness. You may also find an adult flea on your pet or just their “flea dirt” (flea feces). The flea dirt appears to be small specs of dirt on your pet’s fur. However, flea dirt is digested blood and will turn red when mixed with water. A flea comb works best to capture the fleas and flea dirt for identification. A minor infestation may not leave much evidence to be found though. Your veterinarian and their staff can assist in determining if a flea infestation is present if you have any question about it.

Treating Flea Infestations

There are two components to effectively treating a flea infestation:

- Treating ALL pets
- Treating the environment

Treating Your Pet

You can treat your pet a variety of ways including baths, pills, injections and topical products. ***The important thing to remember is that all pets must be treated to eliminate the infestation.*** People commonly treat only the pets they have seen fleas on and do not bother with the pets they have not seen any on. If this occurs, the pets who are not being treated will act as reservoirs for the fleas, and the infestation will never be eliminated. ***Cats are especially difficult to find evidence of fleas on and are the most common reservoir for fleas.*** Fleas prefer a cat host over dog because their thicker, warmer coat provides a more ideal environment. All pets must be treated on a regular basis to completely eliminate the infestation.

There are many different kinds of topical flea products on the market, but we recommend Frontline. Frontline has been proven to be the most effective product on the market for flea control although many other products can also be effective. The source of your topical flea product should also be considered when buying an effective, reliable flea product. Your veterinarian can make suggestions and discuss the differences between products and their sources. The topical products are generally effective for one month. During this time, any adult flea on your pet will die along with any eggs that may be laid before the flea dies. This helps to eliminate the current infestation as well as help eliminate future fleas from developing. ***Due to the potentially long life cycle of the flea, 3 consecutive months of flea treatment is recommended to fully eliminate the flea population.*** Treating less than 3 months could allow any immature fleas in the environment to mature after the topical has been discontinued and re-infest your pet.

Flea shampoos can kill most of the fleas on your pet if done properly. Flea shampoos need to be thoroughly lathered over your pet’s entire body to reach all possible fleas and allowed a certain amount of contact time before being rinsed off. Although effective, flea shampoos are not guaranteed to

eliminate every single flea that may be present on your pet. **They also have no lasting effects so your pet can be reinfested by a new flea from the environment right after the bath.** Caution should also be used when using both a topical product and a shampoo. Although most shampoos can be used with the topical products, the topical products are only water *resistant*. **Frequent bathing can reduce the efficacy of the topical products.** Try to limit your use of flea shampoos to a couple of times a month if using them with the topical products.

Other products include flea collars, powders, injections and pills. **Flea collars are widely ineffective and useless.** Most collars will repel fleas but only around the neck where the collar is located. The collars have no effect on the rest of the body. Some, such as the Scalibor collar, will slowly release a topical product that will cover the entire body and provide complete protection. These collars are only effective if collar is close enough against your pet's skin. Flea powders only sit on top of your pet's fur and cannot get to the fleas which then burrow deeper towards your pet's skin. A flea treatment injection is now on the market which sterilizes the fleas on your pet. This prevents any further reproduction of the current flea infestation but has no killing action against the fleas on your pet or the ones that are developing in the environment. Pills, such as Capstar, are also available as a flea treatment. Capstar kills all adult fleas on your pet rapidly but only for 24 hours. It has no effect on the eggs that may be waiting to fall off of your pet's fur.

Owners must be cautious when treating puppies, kittens, the elderly or debilitated animals. Most flea products are labeled for pets 8 weeks or older and should be used cautiously in sick animals. Revolution is another topical product that is labeled for use in healthy puppies as young as 6 weeks but is still only labeled for kittens 8 weeks and older. Your veterinarian can help you pick the best flea product for your pet if you are concerned about their age or health status.

Cats are also much more sensitive to some flea products than dogs. **Accidentally applying the wrong product to your cat can result in the death of your cat within just a few hours of being exposed to the product.** Products containing the drugs Permethrin and Amitraz are toxic to cats. Permethrin exposure will cause symptoms such as tremors, vomiting, labored breathing, seizures and death in cats. Amitraz causes lethargy, disorientation, staggering, digestive upset, seizures and death. Exposure of a cat to a product containing either ingredient will require immediate veterinary treatment for supportive care. Most flea product toxicities occur when the dog's product accidentally gets applied to the cat. With any product, always read the list of ingredients and instructions carefully and pay extra attention to which product is being applied to which animals. Below is a list of a few flea products that are toxic to cats and some that are safe to use.

Products <u>SAFE</u> for Cats
Frontline
Revolution
Capstar
Advantage II
Advantage Multi

Products <u>TOXIC</u> to Cats
BioSpot
K9 Advantix
Vectra 3D for dogs
Promeris for Dogs
Mitiban
Preventic

Treating the Environment

Since about 95% of the flea population is in the immature phases in the environment, environmental treatment is vital to eliminating an infestation. Treating your pet will eliminate the flea population on your pet, but will not affect any of the immature fleas that are in the environment. Reinfestation can occur as these immature fleas develop into adults that can jump onto your pet. It is also important to keep in mind that the immature stages are generally located in areas that your pet sleeps and in dark places. How often and how thoroughly you clean your environment depends on the severity of the infestation.

Vacuuming and laundry are the best tools for treating your home. Anywhere your pet likes to sleep (kennel, couch, their bed, your bed, etc) must be a focus point. Since ***fleas are light sensitive***, they will also crawl deep into the carpet, under furniture, cracks in the floor and along floor boards. Wash anything that can be washed to best remove the immature fleas. The furniture and floors should then be thoroughly vacuumed while remembering to get underneath the furniture. ***It is important to dispose of or freeze the vacuum bag immediately after vacuuming to eliminate the eggs and larvae.***

Various products can be used to kill the immature fleas in the environment as well. Some products, such as foggers and powders, are less effective. These products sit on top of the carpet instead of penetrating down to where the eggs and larvae are located. They also do not get underneath the furniture and are not always effective against all 4 stages of the flea life cycle. We do recommend Mycodex Plus Environmental Control Spray. This product is effective against all 4 life cycle stages, is heavier than powders to get deeper in the carpet, and is easier to spray underneath furniture. It is best to vacuum before using any product because the vacuum will pull the carpet fibers up allowing for better penetration of the product.

Elimination of fleas in the yard can be an important aspect of flea control. Effective products containing synthetic pyrethroids, such as cyfluthrin and fenvalerate, are available. Spraying insecticides over your entire yard, especially if little shade is present, is not very beneficial. ***Efforts should be focused around bushes, mulch and other moist, shaded areas.***

Preventing Future Infestations

The best way to prevent future flea infestations is to treat your pet monthly with an effective monthly preventative. This provides constant treatment to kill any flea that your pet may become exposed to before an infestation has a chance to develop. Your pet can develop an infestation from interacting with or visiting the home of other animals that may have a flea infestation. If your pet is mainly indoors and does not interact with other pets, your pet is at low risk of developing an infestation from another pet. ***Fleas can be obtained outside due to any cats and wildlife that go through your yard.*** These animals can drop eggs in the environment creating a potential future infestation. Fleas are less of a risk from the environment during the cold, dry winter months. Cats are especially at risk of getting fleas if they are allowed to go outside. Fleas prefer cats over dogs and are more likely to get underneath bushes and other areas where fleas are commonly found. Your veterinarian can discuss the various flea preventative options with you to determine which one is best for you and your pet.