

# Flea Eradication

Fleas can be a challenge to eliminate once they get into your home, but it can be done. You may need to do a combination of treating your cat, and also treating your home to finally get rid of all of the fleas.

## Fleas:

- There are four stages to the lifecycle of the flea, and knowing how to identify and eliminate all of the lifecycles will help you to eliminate fleas from your home more effectively. There are also some diseases to be aware of that fleas can transmit to cats.
  - **Lifecycle:**
    - **Adult flea.** This is the only stage that can be seen by the naked eye. They look similar to gnats, but will jump rather than fly, and are black in color. Almost all products will get adult fleas.
    - **Eggs.** These are microscopic, so you will not be able to see these. Fleas will lay eggs not only on your cat, but also in your carpet and on your furniture.
    - **Larvae.** These are also microscopic. These are the juvenile or baby form of the fleas.
    - **Pupae.** This is the one stage that nothing other than physical removal will get. These are the reason it can be so hard to eliminate fleas from your home once they get in. Pupae are about the size and appearance of a grain of salt. These are the cocoon like stage between larvae and adult flea. These can take up to 6 months to hatch – the colder the environment, the longer they take to hatch. No pesticide legally available will penetrate the pupae.
  - **Flea dirt.** We call this flea dirt because it looks like dirt on your cat, and this is evidence that fleas are present. But, if you look closely, these little black things look more like commas. They are actually flea feces.
    - A good way to tell the difference between flea dirt and regular dirt is rough up your cat's fur or comb off some of these dirt like particles. Next, get a wet white paper towel and smear the particles on it. If it smears grey or has no smear, it is just dirt. If it leaves a distinctive reddish smear, then it is flea dirt – the reddish smear is the digested blood in the flea feces.
  - **Diseases.** There are several diseases that your cat can potentially get from fleas, and a few that you can get from fleas as well.
    - **Tapeworms.** Your cat gets these by grooming themselves and ingesting the live fleas, which are an intermediate host for tapeworms. The fleas get the tapeworms by feeding on animals that are infected with them and ingesting the larvae. When your cat ingests the flea with the tapeworm larvae inside, those larvae hatch in your cat's intestinal tract resulting in tapeworms.
    - **Feline Infectious Anemia (FIA).** This is caused by a bacteria called Mycoplasma hemofelis that lives on red blood cells. This is spread by fleas feeding on cats with this bacterial infection, and then moving to your cat. When your cat grooms and ingests the flea contaminated with the bacteria, they develop the infection. This type of infection is a chronic low grade simmering infection, and can remain in your cat for years before showing symptoms. The most common symptoms include fever, lethargy, and anemia. This disease responds well to doxycycline, and is feline specific.
    - **Bartonella.** Also known as cat scratch fever. This is potentially contagious to people, but not commonly. This bacteria is again picked up by fleas feeding on cats that are carriers of it. The

bacteria is actually excreted in the flea's feces, which is then ingested by your cat when they groom. Humans can get it if they get flea dirt in a fresh open wound (hence the term cat scratch fever), or if the flea dirt is ingested. This also is treated with long term antibiotics.

- **Flea Allergy Dermatitis (FAD).** This occurs when your cat is allergic to fleas. Your cat may become intensely itchy and groom or scratch excessively. You may also notice multiple little bumps or scabs on your cat's skin. This is called allergic dermatitis and is a result of the allergy. Eliminating the fleas will eliminate the allergic response.

### **Flea products for your cat:**

- The most important part of eliminating fleas involves treating the hosts and the environment. You will need to treat all mammalian pets living in your home with a safe flea treatment, and also treat your home with something designed for flea eradication. BUT use extreme caution; many over the counter flea products are actually toxic to cats.
  - **Veterinary flea products.** Flea products that are only available through veterinarians are almost all very safe and effective to use on your cat. These may also have additional qualities such as de-worming for your cat. If you have any questions on any of these, just ask us.
    - Higher cost. While most veterinary flea products do cost more than over the counter, they are backed by the manufacturers, and we guarantee them as safe and effective.
    - Lower cost. If you cannot afford products like Frontline Plus or Advantage, we do have an alternative.
      - Frontline Spray is fipronil in a spray bottle. It is more work to apply as you have to apply it all over your cat, not just in a top spot, but it is just as effective, and one bottle can cover many multiples of cats, dropping the cost per cat or per application significantly. Ask us for more information about this.
  - **Safe over the counter flea products.** There are now a few products that you can buy at the store that are safe and effective for your cat.
    - **Frontline Plus.** Technically, this is only supposed to be sold through vets. But, since Frontline does not absorb into your cat systemically, it is regulated through the EPA, not the FDA, so that gives retailers a loophole that enables them to purchase the Frontline from vets, and then resell. Keep in mind, if you do buy Frontline from the pet store or an online pharmacy, the company will NOT back it if there is a problem. That being said, Frontline is one of the safest and most effective flea treatments available, and it is the only product that will also safely get ticks. The active ingredient in Frontline is fipronil for the adult fleas, and methoprene for the eggs and larvae. Fipronil is now off of patent, so you may see some generic brands of this also available.
    - **Advantage II.** This is very safe and effective on cats, and is FDA approved for over the counter sales. The active ingredient is imadocloprid which kills adult fleas, and pyriproxyfen which kills eggs and larvae.
    - **Capstar.** Just recently made available over the counter, this is a once daily pill that kills adult fleas within 30 minutes of ingestion. This is not a preventative, but if you are looking to eliminate fleas out of your house as fast as possible, this can be used in conjunction with topical flea products. For cats that have FAD, this can also help keep them more comfortable until the fleas are completely eradicated. The active ingredient in this is nitenpyram.
  - **Pyrethrins or permethrins.** While these are effective in killing fleas, they are also **VERY VERY toxic to cats**. Unfortunately most over the counter flea treatments contain a derivative of these and there are so many different names for the derivatives that you cannot tell by looking at the label.

- Because pyrethrins are toxic to cats, most over the counter products that contain these have very low levels of them. But, the levels are so low, that they are often not effective and owners will apply a second or third dose, causing toxic levels on the cat that can lead to seizures and possible death.
- **If the flea product that you purchase says that it also gets ticks, unless the active ingredient is fipronil, which is the only safe effective tick product, then you can guarantee the product contains a derivative of pyrethrin.** Because of the possibility of toxicity we do not recommend the use of any flea product other than the ones listed above.
- **NEVER use a dog flea product on a cat.** Dogs are not as sensitive to pyrethrins as cats are, and so dog products contain much higher levels of pyrethrins that will be toxic to your cat.

### Environmental Elimination:

- Since fleas can lay eggs in your carpets and furniture, you may have to treat your home environment with a flea treatment as well. Unfortunately, there are very few environmental treatments that are effective that do not contain pyrethrins. So, you may have to remove your cats from your home for several hours while treating your home. The only safe environmental products that we recommend would be those that contain only methoprene. These will kill eggs and larvae, but will not kill adult fleas, but as long as you are treating your cat, the adult fleas will die off.
  - **Flea bombs.** These are effective. But, they also contain pyrethrin. If you choose to use these, you need to keep your cat out of the home for several hours afterwards, and air your house out first. Once the residue dries, it is safe for your cat to return.
  - **Carpet sprays and powders.** These are available in methoprene only formulations, which you can use around your cat, but most also contain pyrethrin, so we do not recommend using these around your cat. If you use a spray, once it is fully dried and the room is aired out, your cat can return. Powders, we just don't recommend unless they do not contain any pyrethrins.
  - **Vacuuming.** This is probably the most important part of eliminating fleas from your home, as this is the only way you can remove the pupae. You will need to vacuum frequently for at least 3 months after all signs of fleas are gone. You also will need to make sure that you vacuum under the furniture and in the corners, as fleas like to lay their eggs in carpet that is not in the walk way areas.
  - **Sweeping.** If you have hard floors, be sure to sweep them regularly, especially the corners and under furniture.
  - **Cat furniture and bedding.** If washable, wash these in hot water. If not washable, then vacuum, spray with a carpet spray and leave outside for several hours.
  - **Heat.** Pupae will hatch faster in warm environments, so if you are trying to speed up the hatching of the pupae so you can eliminate them with pesticides, then turn up your thermostat as high as you can comfortably tolerate for several days or as long as you can tolerate.

Since pupae can take up to 6 months to hatch, it may take several months to fully eradicate fleas from your home. We do recommend treating your pets and your home for a minimum of three months, even if you are no longer seeing signs of fleas.

If you have any questions regarding any of the above, please feel free to contact us at All Feline Hospital at 402-467-2711 or [info@allfelinehospital.com](mailto:info@allfelinehospital.com).