Studies have shown that there are over 15 different antigens in the saliva of the flea. Each one of these is capable of causing an allergic response in a sensitive dog or cat. Despite recent advances in flea control, flea bite allergies and flea bite dermatitis still continue to be common problems.

Dogs and cats rarely become desensitized to flea bites once they develop an allergy. Despite recent advances in flea control, flea bite allergies and flea bite dermatitis still continue to be common problems. Other studies show that many dogs with flea allergies also have inhalant allergies (atopy) compounding the problem. There does not appear to be a breed or sex predilection for this allergy.

### Symptoms
Flea bite allergy is characterized by being a seasonal allergy that is worse during peak flea times in the summer and fall. Even in temperate areas or in cases with home infestations, the symptoms of flea bite allergies appear to worsen in the summer and fall. Dogs that have flea allergies will bite at the base of their tail and scratch frequently. Even a few fleas can cause hours and days of intense itching. Many dogs have a characteristic loss or thinning of hair above the base of the tail. In addition, fleas or flea dirt (feces) can be found on the dog the majority of the time. The feces, or flea dirt will dissolve into a red color when moistened; this is because it is primarily digested blood. However, if the dog is bathed or treated regularly, very little evidence of fleas may be found. Severely affected dogs may itch over their entire bodies, have generalized hair loss, and red inflamed skin. Hot spots are often a result of flea bite allergies.

### Diagnosis
Diagnosis can be made by visual signs in combination with the presence of fleas or through intradermal skin testing. Intradermal skin testing is a very effective diagnostic tool for this particular allergy, although some false negative results can occur. Since many affected dogs also suffer from other allergies, many times the flea bite antigen is incorporated into a broader intradermal skin testing program.

### Treatment
Treatment primarily involves preventing the flea from coming into contact with the dog.

**Flea Treatment of Dogs:** A number of both topical and oral preparations are available to use as flea control. It is best use an adulticide, which kills the adult fleas, plus an insect growth regulator (IGR) as well. IGRs help to kill immature forms of the flea, preventing them from developing into biting adults. Talk to your veterinarian about what flea product(s) will work for you. In choosing the product(s) your veterinarian will consider the severity of the flea allergy dermatitis, the severity of the flea infestation, how much your dog goes outside, whether there are multiple dogs in the household, how easy it is for you to treat your dog, etc.

**Treatment of Environment:** Environmental treatment for fleas involves treating the house, outside areas the dog may frequent, and especially sleeping areas of the dog with a product that kills the adults (adulticide) and with an insect growth regulator as well. Another alternative is to use sodium polyborate powder (eg., Fleabusters). Vacuuming, and proper disposal of the cleaner bag are also very beneficial. Other pets in the home should also be treated as they could continue to bring fleas into the environment. While injudicious use of pesticides and growth regulators is never recommended, an effective flea prevention program is much safer and easier than dealing with a full blown flea infestation.

**Hyposensitization:** Hyposensitization of dogs with a series of injections does not appear to be very effective.