

the ITCH

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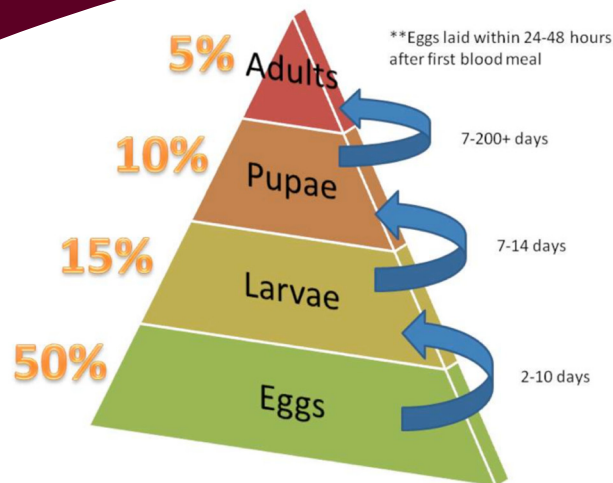
Clinical Appointments

Small Animal
Dermatology
979-845-2351

Equine Dermatology
979-845-3541

For more
information, please
visit our website at:

[vetmed.tamu.edu/
services/dermatology](http://vetmed.tamu.edu/services/dermatology)



Oral Allergy Drops

We are now offering sublingual immunotherapy (oral allergy drops) to our patients/clients. For those patients or clients that do not like 'needles' or 'injections', this oral route of administration is another option to consider. Oral allergy drops appear to be of equal efficacy to the standard 'allergy injections', but these drops must be given daily. The now *new* and *old* options of immunotherapy administration allow us to better tailor therapy to the temperament of the patient and lifestyle of the client. Ultimately, compliance and success will hopefully be improved.

Managing Fleas and Flea Allergy Dermatitis

Fleas are the reason for itching this season... and may be contributing to why your patients are still uncomfortable despite treatment for infections and allergies. With the temperatures and humidity coming back into ideal ranges for fleas in Texas (although in much of the country, 'flea season' is on the way out), we wanted to provide a quick refresher on flea biology and tips for managing the flea allergic patient.

Flea Biology

Depending on environmental conditions, the entire flea life cycle can take anywhere from 14 to 200+ days. The adult flea is the **ONLY** stage of the flea life cycle which lives on the animal host; the other 95% of the flea burden resides in the environment in immature stages. This is an important concept to relate to owners - the fleas they see on their animals are only the tip of the iceberg. Even indoor only animals have the potential to be exposed to fleas. Adult fleas can hitch a ride on people or other household pets that go outside resulting in an indoor infestation. Within 24-48 hours of a blood meal, the female flea will begin to lay eggs, often up to 40-50 in a day. These eggs drop off the host onto the ground. Within a few days the eggs mature into larvae which bury deep into their microhabitat away from light; direct sunlight and heavy rain will kill larval stages. The larvae feed on organic debris and within 7-14 days turn into pupae. This is the most resistant stage of the flea

life cycle. These pre-emergent adults are hearty creatures, protected from the environment by a strong silk cocoon. They can remain in a state of "suspended animation" for upwards of 200 days or until heat and humidity are ideal. They will then complete their life cycle and mature into adult fleas ready to begin a new cycle.

Key Points

- Ideal conditions for the flea life cycle are temperatures approximating 70-85oF with a relative humidity of 70-85%. These ideals are in full swing in many parts of Texas during this time of year.
- Adult fleas do not jump from pet to pet, but rather adult fleas are a source of flea eggs which mature into parasitizing adults.
- The adult flea is the **EASIEST** stage of the life cycle to target since this is the **ONLY** stage which resides on the pet making it amenable to adulticidal flea prevention.
- It is the salivary antigen in adult flea saliva to which hypersensitive animals react. It is important that animals with flea allergy dermatitis be maintained on adulticidal flea prevention to minimize the time adult fleas are injecting these antigens into the skin. The addition of an approved insect growth regulator (IGR) for the pet will limit the possibility of an infestation (think of it as flea birth control).



Did you know?

- The VMTH has two full-time Diplomates of the American College of Veterinary Dermatology (Dr. Adam Patterson, above, and Dr. Alison Diesel, below) specializing in the diagnosis and treatment of skin, ears, claws, and allergy in both small and large companion animals
- Two dermatopathologists who are Diplomates of the American College of Veterinary Pathology work side-by-side with the clinical dermatologists to diagnose skin disease
- Downloadable referral and dermatological history forms along with other information is available to you and your clients at vetmed.tamu.edu/services/dermatology
- You can send skin biopsies from your practice for interpretation by our dermatopathologists by following the instructions at vetmed.tamu.edu/vtpbl/professional-services/dermatopathology



- Environmental control measures focus on the immature stages of fleas. Vacuuming the indoor area can help reduce the pupae burden. Products containing insect growth regulators (IGRs) such as pyriproxifen or S-methoprene are helpful indoors as well. Foggers with these products can be used, but they must be combined with hand-pump/aerosolized sprays to treat areas where the foggers miss (e.g. under furniture, behind curtains, cracks and crevices). Many IGR products for indoor use contain pyrethroids, so read label precautions regarding pet (especially cats) and child removal from treated premises. Products for outdoor use should be used in the shadiest parts of the property (e.g. under trees and bushes, under porches, in dog houses).

- It is typically not the product when flea prevention is deemed a failure, but more often a failure to address other factors, such as:

- o Client education (e.g. flea preventatives are not true repellants and do not instantaneously kill adult fleas, do not leave food out for neighborhood and wild animals which can act as flea vectors)

- o Client compliance (e.g. correct application/administration of product)

- o Treatment of ALL animals in the household with an approved preventative on a monthly (every 28-30 days) basis all year-round

- o Treatment of the environment when faced with an infestation

- o Minimize contact with stray animals, barn cats, and wildlife (e.g. opossum) which carry fleas

- Lastly, remember to set clients' expectations before they set their own – treated animals may occasionally have a few fleas since so many factors are involved in the flea life cycle and product use. When re-enforcements are needed, we are here to serve your referred patients.

Practice Pearls

With all of the flea preventatives available for animal use, it can be tricky to keep up with which product does what with regards to flea life stage. Here is a quick reference guide which we hope you will find useful.

Commercial Product	Manufacturer	Active Ingredients	Characteristics	Additional Information
Frontline Plus	Merial	Fipronil, S-methoprene	Adulticide, ovcide, larvacide	
Certifect	Merial	Fipronil, S-methoprene, amitraz	Adulticide, ovcide, larvacide	For dogs; Not for cats
Parastar	Novartis Animal Health	Fipronil	Adulticide	For dogs
Parastar Plus	Novartis Animal Health	Fipronil, cyphenothrin	Adulticide	For dogs; Not for cats
EasySpot	Novartis Animal Health	Fipronil	Adulticide	For cats
Revolution	Pfizer Animal Health	Selemectin	Adulticide, ovcide	More bioavailable in cats than dogs
Vectra 3D	Ceva Animal Health	Dinotefuran, pyriproxifen, permethrin	Adulticide, ovcide, larvacide	Vectra for cats (and puppies) does not contain permethrin
Advantage	Bayer Animal Health	Imidocloprid	Adulticide	
Advantix	Bayer Animal Health	Imidocloprid, permethrin	Adulticide	For dogs; Not for cats
Advantage Multi	Bayer Animal Health	Imidocloprid, moxidectin	Adulticide	Also contains heartworm prevention
Advantage II	Bayer Animal Health	Imidocloprid, pyriproxifen	Adulticide, ovcide, larvacide	
Advantix II	Bayer Animal Health	Imidocloprid, permethrin, pyriproxifen	Adulticide, ovcide, larvacide	For dogs; Not for cats
Comfortis	Elanco Companion Animal Health	Spinosad	Adulticide	Oral flavored tablet for dogs that must be given with food; residual effect may not last for a full month
Trifexis	Elanco Companion Animal Health	Spinosad, milbemycin oxime	Adulticide	Same as above, but with heartworm prevention
Assurity	Elanco Companion Animal Health	Spinetoram	Adulticide	For cats
Program	Novartis Animal Health	Lufenuron	Ovcide, larvacide	IGR - DOES NOT GET ADULT FLEAS
Sentinel	Novartis Animal Health	Lufenuron, milbemycin oxime	Ovcide, larvacide	Heartworm prevention with IGR - DOES NOT GET ADULT FLEAS