# **Our Staff...**



#### Patrick McKee, DVM

Dr. Patrick McKee received his DVM from Oklahoma State University. He practiced in Charlotte for a year before moving to Hendersonville where he practiced emergency medicine prior to purchasing AVAH in 2010. The McKee's family includes a son, two daughters, three dogs & three horses.

Away from work, Doctor McKee enjoys exploring the mountains of North Carolina with his family as well as biking, camping, horseback riding, rafting, fishing, and photography.



#### Jennifer McKee, DVM

Dr. Jennifer McKee received her DVM from Oklahoma State University. Dr. McKee is a member of the American Veterinary Medical Association, American Association of Equine Practitioners, and the International Veterinary Acupuncture Society. Dr. McKee is also the owner of Apple Valley Equine Mo bile Veterinary Services.

In her free time she enjoys camping, kayaking, swimming and spending time with her husband, Patrick McKee, DVM, and their three children, three horses and three dogs.

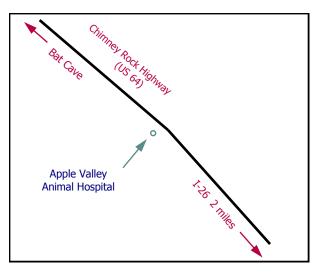
# Reception Staff

Our reception staff assures the smooth flow of patients, records and information through the hospital. Teresa and Jane are very knowledgeable and always happy to help you with appointments and product information. Our staff look forward to taking your calls and answering, or getting an answer, to your pet care questions.

#### **Nursing Staff**

Dawn and Taylor, our Registered Veterinary Technicians. are responsible for administering the veterinarian's medical orders, maintaining medical histories and the care and comfort of our patients while they are with us. Our nursing staff are required to attend continuing education annually. They are a great source of information and are always happy to help with any pet care questions. They are also quick with a treat and scratch behind the ear to make sure our patient's visits are a good experience.

## **Directions**



# Apple Valley Animal Hospital

## YOUR OTHER FAMILY DOCTOR



3015 Chimney Rock Road Hendersonville, NC 28792

Phone: (828) 685-1650 Fax: (828) 685-9774 Email: info@AVvets.com Website: www.AVvets.com

#### Hours of operation:

Monday through Friday 7:30a to 5:30p Saturday 8:00a to 1:00p

Please call 685-1650 to schedule appointments.

# Controlling Fleas & Ticks



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# What's the deal with fleas...

and why are they so hard to control?

**The Facts:** Fleas thrive in warm, moist environments (like our pets fur). Their main food is blood from the host. They get blood from biting their host (up to 400 times per day). Flea's saliva, like other biting parasites (think itchy mosquito bites) contains a component that soften the host's skin making it easier to penetrate for feeding. The fleas saliva is what causes itching, irritation and allergic reactions.

Ok, so that's how fleas make our pets miserable, but what makes them so hard to control? This is where fleas have a secret weapon. Its their variable life cycle and we need to understand each phase (egg, larva, pupa, adult) to understand how control them.

An adult female flea can lay 50 white, roundish eggs per day and up to 600 eggs over several months. While many parasites eggs are sticky, the flea egg is



not. As the pet or wild animal host moves through its environment, eggs fall off much like sand would. (Up to 50 eggs per female flea a day) And of course, more will fall off where the host spends most of

its time; yard, bedding, carpet or furniture. The eggs will hatch from  ${\it 2}$  days to a few weeks later, depending on the environment.

The hatched flea is now in its larval form. Roughly, 1/4" long and semi-transparent white. Larvae crawl actively and feed on dried blood feces from adult fleas or other organic matter in the soil, carpet or bedding environment. Depending on the environment the larva stage lasts from 5 to 18+ days when the larva spins a silken cocoon where it will pupate.

The pupa is the last developmental stage before the flea becomes an adult, and this is their secret weapon. Fleas can survive in this impenetrable cocoon from three days to more than a year waiting for the right stimulation to trigger their emergence. Triggering factors can be warmth, high humidity, movement or even carbon dioxide from a passing animal. Fleas can feel the stimulus, emerge and jump toward the animal in the blink of an eye, ready to start the cycle over again. So the flea's secret weapon is the variable time it can spend in it's impenetrable cocoon.

Adult fleas make up only 5% of the typical flea population so even if all adult fleas are killed, more eggs and larva are present and pre-emergent fleas in their cocoons can be waiting to emerge for more than a year! That's why a systematic, year round flea protection is crucial to flea control.

#### **Dr. McKee's Recommendations**

After reviewing the safety and efficacy information, Dr. McKee recommends:

Merial, the maker of Frontline has developed the next generation of flea prevention, **Frontline TRITAK**. TRITAK kills fleas fast (90% of adult fleas in fifteen minutes). Because adult fleas make up only 5% of a typical flea population, your pet also needs protection against the fleas' eggs and larvae so TRITAK has added (S)-methoprene, to control those stages. As with other Frontline products, Frontline TRITAK for dogs comes with their Satisfaction Plus Guarantee.

Fleas attack cats, too. Frontline Tritak For Cats is especially formulated for felines and kills fleas fast so they have less time to bite your cat. It also contains a third ingredient, (S)-methoprene, to kill flea eggs and larvae.

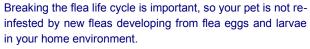
For more information on Frontline TRITAK, including their national television launch video visit our website



activvľ

Activyl, the latest innovation in monthly spot-on flea control, features indoxacarb and bioactivation- a mode of action that uses enzymes inside the flea to activate Activyl's full flea-killing power.

Unlike some flea treatments, Activyl doesn't just kill adult fleas, it also stops flea eggs and larvae from developing.



Activyl is quick-drying, fragrance-free, waterproof and remains effective even after bathing.

#### **And Ticks!**

Ticks carry diseases which can infect people and pets. The CDC reports that ticks in every state carry diseases, and the number of tick-borne diseases is on the rise. Ticks are attracted to motion, warm temperatures and carbon dioxide exhaled from mammals; all reasons ticks are attract-



ed to our pets. While their bites are not painful and usually not felt, the saliva they transmit can contain diseases and parasites.

Our high "tick season" is generally considered to be April to

November, but with the wide temperature variations here in WNC, ticks can be seen any time. That's why year round prevention is recommended. If you find a tick attached to you pet, the best way to remove it is with tweezers. Grasp the tick as close to the skin as possible and pull out with a steady motion. Be careful not to touch the tick and wash with soap and water when you finish.

Ticks can transmit several illnesses and diseases to humans including Lyme's Disease, Rocky Mountain Spotted Fever, anaplasmosis, erchlichiosis. If you find a tick on yourself contact your family doctor for more information.

Ticks can be found anywhere from urban parks and neighborhoods to lake banks and forests.

Ticks usually travel up (which is why they are often found on the scalp) to the end of a blade of grass, weed or bush and hold their two front legs out waiting to grab a passing host. Once



on a host, they can spend between 10 minutes to 2 hours attaching and up to several days slowly sucking blood before detaching and dropping to the ground. Each time they feed they become infected with any diseases or pathogens the host carries. The next time they feed, those infections are passed to the next host.

The good news is Frontline products protect pets against fleas AND ticks!