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, four dogs & two 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.

Dr. Jennifer McKee received her DVM from Oklahoma State University. She 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 Mobile Veterinary Services.



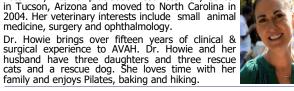
In her free time she enjoys camping, kayaking, swimming and spending time with her husband, Dr. Patrick and their three children.

Dr. Cassandra Lord received her DVM from the University of Tennessee. After graduation, she completed an emergency focused internship in Chattanooga. Though she loved emergency medicine, she missed getting to know her clients and their pets.

Outside of work, she enjoys running and exploring the mountains with her husband and two children and relaxing at home with her two dogs and cat.

Dr. Robin Howie received her DVM from the University of Florida's College of Veterinary Medicine. She completed her veterinary internship at Southwest Veterinary Center in Tucson, Arizona and moved to North Carolina in





Dr. Naima White received her DVM from the Oklahoma State University College of Veterinary Medicine. She started her 24 year veterinary career at the USDA. She is also a Fear Free certified veterinarian.

> Dr. White has an array of companion animals including rescue horses, donkeys, llamas, goats, poultry and of course dogs & cats. She would be honored to meet your pets here at AVAH.

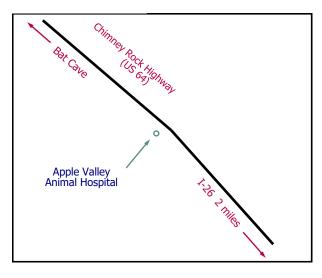
> During her free time Dr. White enjoys spending time with her family at Lake Lure, riding horses with

her daughter, & attending events at the Tryon Equestrian Center.

Client Service: Our Client Service Representatives assure the smooth flow of patients, records & information through the hospital. Camryn, Tiffany and Taylor are very knowledgeable and always happy to help with appointments & product information. They look forward to taking your calls and answering, or getting an answer, to your pet care questions.

Nursing Staff: Taylor, Marcos & Meghan, our Registered Veterinary Technicians, are responsible for administering the doctor's orders, maintaining medical histories and the care & comfort of our patients. Our technicians are required to attend continuing education annually. They're a great source of information and are always happy answer your questions. They are also quick with a treat and scratch behind the ear to make sure our patient's visits are a great 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

Visit us at www.AVvets.com



Hours of operation:

Monday through Friday 7:30a to 6:00p Saturday 8:00a to 3:00p Call 685-1650 to schedule an appointment.

Controlling Fleas & Ticks



YOUR OTHER FAMILY DOCTOR

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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, their variable life cycle. 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 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 semitransparent 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.

After reviewing the safety and efficacy information,

Dr. McKee recommends:

NexGard is a soft beef flavored chew that provides 30 days of flea and tick protection. NexGard kills fleas fast (100% in the first 24 hours).

Because NexGard is an oral medication, there is no waiting time between the application and when your dog can swim or be bathed. Afoxolancer, the active



ingredient in Nex-Gard, over-stimulates the flea's nervous system, killing them before they have a chance to lay eggs. NexGard is made from a soy product containing no animal proteins, so it can be safely given to dogs with food allergies. Like all other Merial prod-

ucts, NexGard comes with their Satisfaction Plus Guarantee. This guarantee even covers if your pet does not enjoy the taste, which is a rare, even among the pickiest of dogs! NexGard Combo and NexGard Plus help prevention fleas, ticks, heartworms and some intestinal parasites for both dogs and cats

Provecta II is a topical monthly prevention that can protection your cats against fleas. Proventa II contains Imidacloprid which is the ingredient that helps to killi fleas

in 12 hours and protects your cat from fleas, fleat eggs and larvae for a whole month. Revolution Plus is a topical monthly prevention for cats. Revolution Plus have the active ingredients Selamectin and Sarolaner; which help protect cats against fleas, ticks, ear mites, heartworms and some intestinal parasites.



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 tickborne diseases is on the rise. Ticks are attracted to motion, warm temperatures and carbon dioxide exhaled from mammals; all reasons ticks are attracted 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 tem-

perature 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 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 NexGuard and Activyl Tick Plus protect your pets against fleas AND ticks!