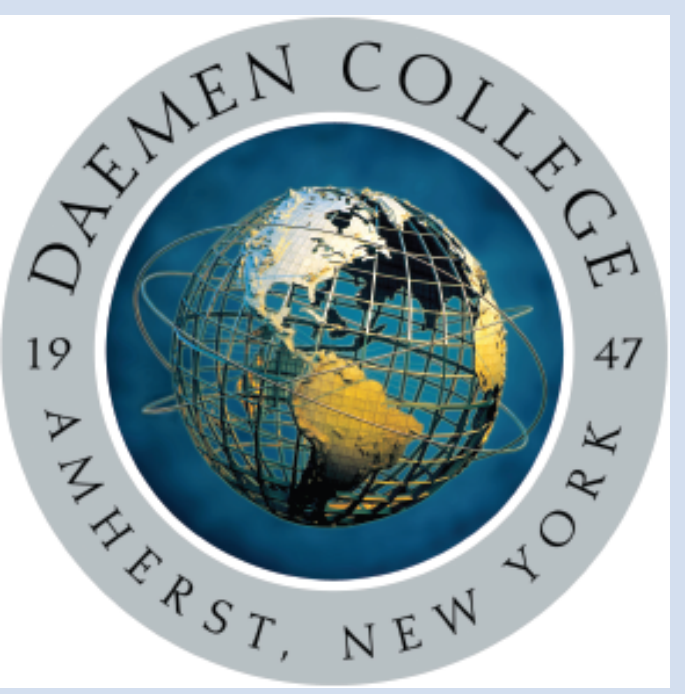




# How to Prevent the Diseases Associated with Parasites from Harming your Animals

## Department Natural Sciences – Pre-vet



### BACKGROUND INFORMATION

We allow our animals to go outside to release their energy and to use the restroom, but when they return into the house, do we check them for potential parasites? Our pets can bring harmful external parasites, such as ticks and fleas that feed on our blood, into our homes. They can be bitten by other external parasites like mosquitoes that can transfer parasites while drinking their blood. Animal owners need to know the potential risks associated with common parasites and how to prevent them. This poster contains some of the preventative measures that can be used to defend our pets against these parasites.

### FLEAS TICKS AND MOSQUITOES

#### FLEAS<sup>1,2</sup>:

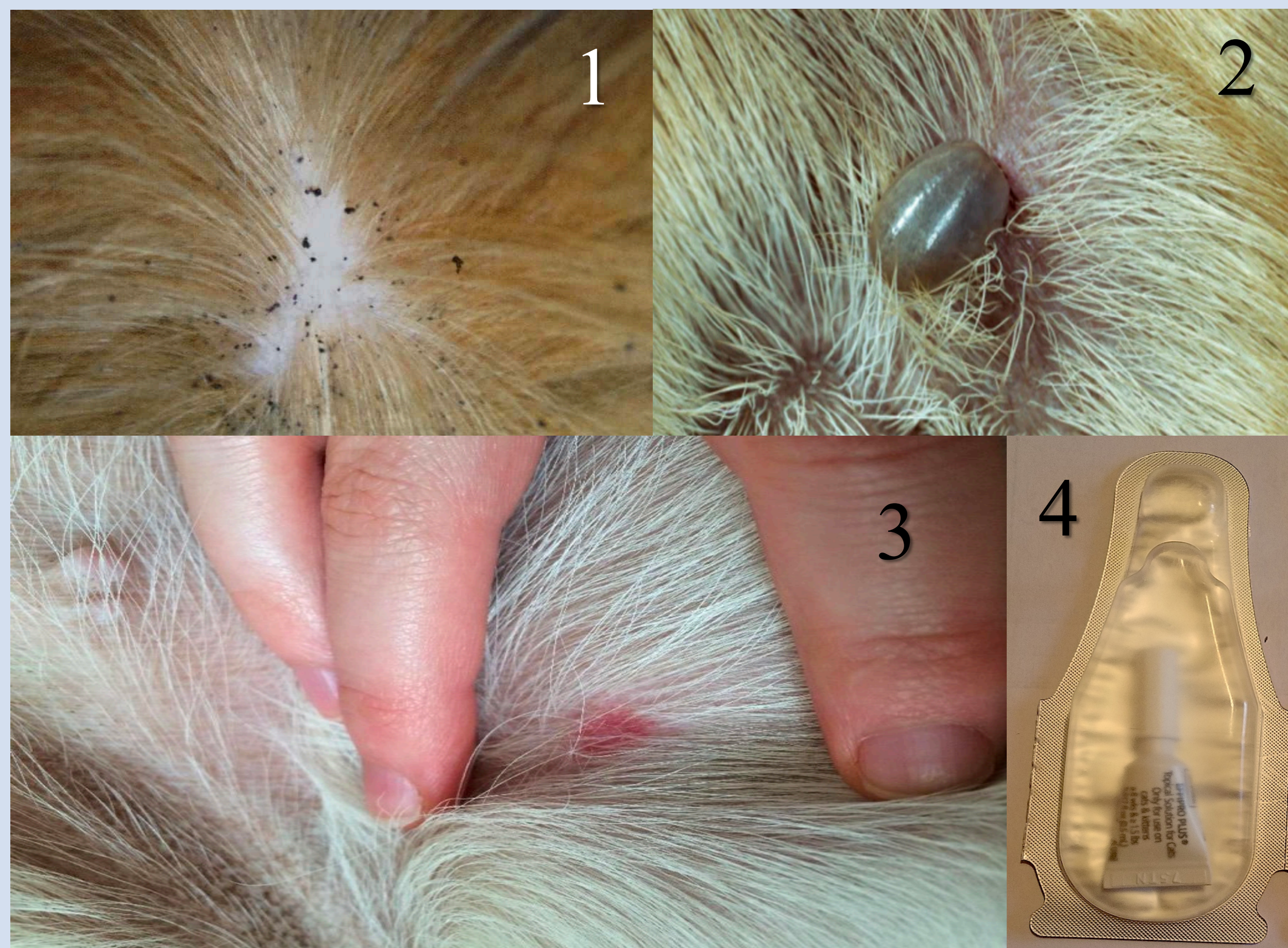
- They lay eggs which can infest carpets, bedding, and upholstery
- Can carry bacterial diseases such as typhus or plague, or transfer tapeworms
- Can cause anemia and dermatitis

#### TICKS<sup>3</sup>:

- Can transfer harmful bacterial and viral diseases/illnesses for both humans and animals such as:
  - Lyme disease, Rocky Mountain Spotted Fever and allergic reactions
- Multiple species of ticks that can infest including:
  - Deer ticks, American dog ticks, brown dog ticks, lone star ticks, and black legged ticks are a few of the common varieties

#### MOSQUITOES<sup>4</sup>:

- Can carry multiple diseases and possibly other parasites which affect both humans and animals
- The most common illness transferred to pets from this parasite is Heartworm
  - The larvae take 7 months to mature into adults
  - The mature worms will reside inside the heart, lungs, and blood vessels of the animal



### POSSIBLE FLEA/TICK PREVENTATIVE MEASURES

The most common preventative measures recommended by veterinarians:

#### Common Oral Preventative Measures:

- Side effects include vomiting, decreased appetite, and possible neurological symptoms (tremors/seizures)

##### 1. Bravecto<sup>5</sup>

- Kills fleas and prevents flea infestations within the home
- Kills certain types of ticks
  - Black legged ticks, American dog ticks, and brown dog ticks
- Does not prevent mosquito bites
- 1 oral chew (5 strengths) for puppies 6 months and up that are over 4.4 lbs.
- Works for 12 weeks

##### 2. Simparica<sup>6</sup>

- Kills fleas and ticks and provides Lyme coverage
- Does not prevent mosquitoes, but is recommended to use with ProHeart
- 1 oral chew (6 different dosages based on weight) for dogs 6 months or older
- Works for 35 days
- Satisfaction guarantee

#### Common Topical Preventative Measures:

- Must wait at least 24 hours before the animal can swim or get wet after applying the treatment

##### 1. Provecta<sup>7</sup>

- Repels and kills fleas
- Repels and kills certain types of ticks
  - Deer ticks, American dog ticks, brown dog ticks, and Lone star ticks
- Repels and kills mosquitoes
- 1 treatment based on weight for dogs 7 weeks or older & it works for 4 weeks

##### 2. Revolution Plus<sup>9</sup>

- Kills fleas
- Kills certain types of ticks
  - Black legged ticks, deer ticks, gulf coast ticks, and the American dog tick
- Prevents heartworm disease
- Reduces the population of hookworms, ear mites, and roundworms in the animal's body by 99-100%
- Works for 5 weeks on cats 8 weeks of age and that are over 2.8 pounds

#### Other Common Preventative Measures:

##### 1. Seresto<sup>8</sup>

- Kills and prevents against fleas and ticks
- 1 odorless and non-greasy collar (comes in multiple sizes)
- Works for 8 months on animals 7 weeks or older
- May cause hair loss

##### 2. Program<sup>13</sup>

- Kills young fleas before they can grow
- Use in cats 6 weeks or older
- 6 month injectable
- Administered by a veterinarian
- Side effects include pain on injection, lump at the injection site, anorexia and vomiting



#### Figures:

Figure 1. An image of flea dirt in animal hair indicating that the animal has fleas.

Figure 2. An image of a tick burrowed into a dog, drinking its blood.

Figure 3. An image of a bite on a dog's stomach indicating it was recently bit by a mosquito.

Figure 4. A topical flea/tick prevention treatment applicator for felines.

Figure 5. A photo of the Seresto collar which is a flea/tick preventative method.

Figure 6. An image of heartworms after being collected from an animal.

### POSSIBLE HEARTWORM PREVENTION

#### Heartworm Preventative Measures:

- Side effects include vomiting, diarrhea, lethargy, weakness or possible excess salivation



##### 1. ProHeart 12<sup>6</sup>

- Prevents heartworm disease as transmitted by mosquitoes
- Prevents against hookworms, roundworms, and whipworms
- 1 shot of the medication for animals 12 months of age or older
- Works for 12 months
- Safe to use in collies

##### 2. Sentinel<sup>10</sup>

- Flavor tab for animals 4 weeks or older and that weigh over 2 lbs.
- Prevents against heartworm disease, controls for fleas and hookworms and removes roundworms and whipworms from the animal's body
- Cannot use for collies due to the ivermectin

##### 3. Heartgard Plus<sup>11</sup>

- Chewable tablet for puppies 6 weeks or older
- Prevents heartworm disease for 1 month, treats and controls hookworms and roundworms
- Neurological and digestive side effects
- Cannot use for collies because of ivermectin

##### 4. Interceptor<sup>12</sup>

- Prevents heartworm disease for 1 month
- Protects against intestinal parasites
- Approved for puppies 4 weeks and older, weighing over 2 lbs.
- Small oral tablet
- Collies can use this prevention method

### CONCLUSIONS

Some of the preventative measures offered by veterinarians to help protect our animals against parasites are presented here. Each medication has side effects, and some repel multiple pests. The owner must decide which prevention method will meet their needs and weigh all side effects first. Heartworm preventative is essential to avoid the expensive and difficult treatment if your pet gets heartworms. By using precaution, our pets will have protection against Lyme disease, Heartworm, viral infections, and bacterial infections carried by fleas, ticks, and mosquitoes.

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