

### **Parasite Control:**

External and internal parasites on our four legged family members are bad for their health and can also introduce life threatening or debilitating diseases to your family. Many parasites are able to infect cats, dogs, and people! At Hampden Veterinary Clinic we believe in providing high quality, preventative medicine for your four legged family member to insure that they have a long and healthy life but to also help protect your two legged family member's health as well. We have both topical and oral medications to provide monthly prevention of fleas and ticks on your pets. Some products offer protection against biting flies and mosquitoes. The doctors and staff at Hampden Veterinary Clinic would be happy to tailor your family's external parasites control. We realize that good health care for your pet may be hard on your family budget. Hampden Veterinary Clinic will sell you single doses of flea and tick prevention or heartworm prevention pills.

### **Recommendation Outline:**

Recommend internal parasitic control all year around for every pet in the household

Recommend external parasite control during above freezing temperatures or all year depending on your pet's environment

- Recommend fecal examination 1 to 4 times a year depending on your pet's health, environment, and your compliance with parasitic control.
- Recommend high quality, veterinary products for flea, tick, and parasite control ( Vectra, Nexgard, Revolution, Frontline)

If you do not want to use flea and tick prevention all year around here are our guidelines on **WHEN** you should use it:

- Warm weather so spring through 2 weeks past the first frost.
- Any time a new pet is introduced to the home, even if it's visitors
- Any time you are moving into a new home/apartment
- Any time you are travelling to warmer climates

### **Fleas Carry:**

- Tapeworms
- Rickettsial disease
- hemobartonella/Mycoplasma

### **Ticks Carry:**

-Lyme disease

-Ehrlichia

-Anaplasmosis

-Babesiosis

-Cytauxzoonosis

### **External parasites (ticks and fleas):**

#### **Fleas:**

Fleas are wingless insects that live by feeding on blood off of mammals. Although they have a preference for a certain species, a hunger flea will feed off of the nearest warm body which could be your or your family! Fleas can jump as high as 7 inches and as far as 13 inches. Based on their body size, no other insect or mammal can rival that distance! Fleas go through 4 life stages: egg, larva, pupa, and adult stage. Adult fleas must feed on blood before they can become capable of reproduction and most flea populations are evenly distributed, with about 50% eggs, 35% larvae, 10% pupae, and 5% adults. One adult female flea will lay about 5000 eggs in her natural life span and make approximately 40 to 50 eggs a day. Some fleas can survive at 37.4°F for 10 days and can survive the winter outdoors as long as they are on a warm mammal. They can survive for 5 days at below freezing as well. The flea in the pupa stage can lay dormant for up to 30 weeks and emerge when stimulated by warmth, carbon dioxide, or mechanical pressure.

#### **Fleas and Your Pet's Health:**

Fleas carry a variety of disease to both cats and dogs. The most common problem that you may see is tape worms. Tape worms eggs are carried in the flea and when ingested, go on to infect your pet's intestinal tract. Other diseases include infectious diseases such as feline infectious anemia, rickettsial diseases and patients can also have flea allergy dermatitis.

#### **Fleas and Your Health:**

The common dog and cat fleas can transmit a variety of diseases to you and your family. Cat scratch fever, murine typhus, and tapeworms are all transmitted to people by fleas. In certain parts of the counter, bubonic plague is transmitted by rodent fleas that infect your cat or dog. Flea bites also can cause a rash and allergic reaction in some people. Children with tapeworms are acquiring them by ingesting fleas in their home.

#### **Ticks:**

Ticks are part of the spider family and have 8 legs. There are 3 families of ticks and within each family there are different ticks with different characteristics. Ticks have to feed on blood between each life stage and can cause profound anemia in their hosts. Ticks are typically found on low vegetation and invade your pet when they are walking near the borders of grass and woods. Female ticks can become 100 x bigger when engorged with blood.

#### **Ticks and Your Pet's Health:**

Ticks carry various diseases including Lyme disease, Erlichiosis, Babesia, Rocky Mountain spotted fever, Anaplasmosis, and can cause tick paralysis. Like fleas, they like to feed on warm bodies and can transmit disease to both you and your pet. Ticks can cause allergic reaction and itching or ulcers at the bite site and can feed on blood for up to 24 hours. Some dogs and cats can form an abscess at the bite site.

#### Ticks and Your Health:

Many of the diseases transmitted to your dog can also be transmitted to you by a tick bite. If your dog is getting covered in ticks, it's likely that you have a high exposure to ticks as well. If you are interested in having any ticks identified in the state of Maine, University of Maine Orono's cooperative extension offers identification. There is a fee per tick and an online tick submission form must be completed. If you remove a tick from yourself or your pet and would like to have it identified, place the tick in a small vial of alcohol inside a crushproof container

#### **Internal parasites (intestinal worms):**

Internal parasites can live in various parts of your pet. In fact, there are worms that can inhabit almost every organ in your pet's body. In this section we will be concentrating predominantly on worms that infect the intestines and the heart in your dog or cat.

#### **Intestinal Worms:**

At HVC we recommend that all dogs be on year round prevention to protect them against common intestinal worms. Annual fecal examination/screening can help monitor your pet's health and insure that we have good parasitic control. Puppies should have fecal examination and dewormed multiple times during the vaccination process. Puppies and kittens can acquire worms through the uterus and from nursing. Many worms can be transmitted to people and can cause significant health problems in people.

#### **Heartworms Dogs and Cats:**

Heartworms are transmitted by a mosquito bite. This disease has been diagnosed in all 50 states in the country. Although this disease is commonly found in warmer, wet/humid climates it has been increasingly diagnosed in the northern United States. According to the American Heartworm Association environmental changes and formations of "heat islands" and urban sprawl has helped create small pockets of mosquito friendly environments even in cold states. In 2013, Merial reports 171 cases of heartworm infections treated in the state of Maine.

Heartworms predominantly infect dogs but can cause a lower level infection (1 to 3 worms) in cats as well. The severity of the disease will depend on the number of worms in the heart, your pet's immune response, length of infection, and activity level of your pet. Live adult heartworms can cause direct irritation of the heart muscles but can suppress your pet's immune response. Dead worms will start an immune response in both the heart and the lungs and long term will cause scarring of the heart and lungs. Active dogs tend to develop more changes than sedentary dogs. Owners will notice a cough,

exercise intolerance, over heart failure or fluid in the belly. Some infected animals will die from a spontaneous blood clot to the lungs or dead worm causing a clot like obstruction in the lungs.

Treatment of heartworms can be costly and difficult. Killing the worms makes the bodies fly out of the heart and into the lungs. This can lead to further damage to the heart and lungs. Dead worms also increase the risk of a fatal allergic reaction or a clot formation in the heart or lungs. Patients typically require x-rays of the chest and an ultrasound of the heart to ascertain how many worms are present prior to instituting therapy. Therapies include a combination of antibiotics, steroids, and medications to kill both baby(microfilaria) and adult heartworms. Costs for treatment typically cost 900-1200 per pet. Lastly, the muscle changes and damage to the heart and lungs are permanent. Some patients will require surgical removal of worms if the worms are causing a life threatening problem. This is a completely preventable disease with monthly prevention tablets.

### **Frequently Asked Questions:**

1. *My cat is indoor only, do I really need to do flea and tick prevention?*
  - a. Yes! Fleas and ticks can catch a ride on your clothes or belongings and can easily be brought into your home. If your friends come over to visit and don't have a flea free home, they could leave a house warming gift behind. Controlling fleas is much easier than having decontaminate your pet and home. We recommend monthly prevention even in the winter since heat in the homes allows fleas to survive all year long.
2. *Do I need to use heartworm prevention if my dog stays in the state of Maine?*
  - a. In 2013 Merial (the makers of heartguard) reported 171 cases of dogs with heart worm disease in Maine! 171 is a little bit more than 0 cases. As climate and weather changes as well as human and pet travel changes, heartworm disease is slowly creeping north. Heart worm disease is a completely preventable FATAL disease. Furthermore treatment of heartworms typically costs 900-1200 dollars (much more than the monthly prevention!) We recommend the monthly prevention since we can also treat internal worms with the same chewy medication!
3. *Flea and Tick prevention is really expensive, what should I do?*
  - a. At Hampden Veterinary Clinic we offer the option to buy just ONE dose of flea and tick or heart worm prevention. Other hospitals may require you to buy 3, 6 or 12 months at a time but we realize that can be a big bill. We also offer many manufacture coupons and deals where you may be able to get some medication for free. Lastly, fleas can transmit disease to both you and your pet. Medical bills are much expensive than monthly prevention and you health and your pet's health is priceless! Please contact us so we can help tailor a unique program for your family.
4. *If I see one flea on my dog is that a big deal?*
  - a. One adult female flea will lay about 5000 eggs in her natural life span and make approximately 40 to 50 eggs a day. Most flea populations are evenly distributed, with about 50% eggs, 35% larvae, 10% pupae, and 5% adults. So one adult means a lot more flea friends are around!
5. *We had the first frost last night; can I stop my flea and tick prevention?*

- a. Some fleas can survive at 37.4°F for 10 days and can survive the winter outdoors as long as they are on a warm mammal. They can survive for 5 days outdoors at below freezing as well. The flea in the pupa stage can lay dormant for up to 30 weeks and emerge when stimulated by warmth, carbon dioxide, or mechanical pressure. Based on these facts of flea survival we recommend year round treat or at least waiting until it has been consistently below freezing for 2 weeks.
6. *I never see fleas on my cat, which means she doesn't have fleas right?*
  - a. Cats are great groomers. Rarely do we find a flea on a cat until there is a raging infestation. We recommend looking for flea dirt or flea poop instead. Brush your pet and then place the fur and any debris on a paper towel. Wet the paper towel and smush the fur and debris. If you see red streaks, you just found some flea poop and it's time to get deworming and flea and tick medication!
7. *Why do you want to do a fecal examination if my dog is on monthly prevention?*
  - a. The monthly prevention we prescribe your dog kills the most COMMON intestinal parasites. There are other parasites that are less common that could infect your dog. Also doing a fecal can give us an idea of if your pet's colonic bacteria off or if there are other things ( fungal, bacterial etc) infections that your pet is fighting.
8. *My dog and I both hate how sticky and gross topical flea and tick prevention products are. Plus we like to swim in the summer. Is there something else we can use?*
  - a. Yes! We have a new product called NexGard. It is a tablet that your dog chews that provides month long protection against fleas and ticks. It even kills the ticks faster than products like frontline. It is a safe and effective drug and you can swim or take a bath right away!
9. *Can I use my dog flea and tick prevention on my cat?*
  - a. No! Cats are not small dogs. There are some drugs that are safe for dogs but not cats. Some of the flea and tick medications can cause tremors or seizures in cats. Please use a cat specific drug for your cat. We would be happy to go over which products are best for your kitty!
10. *My cat has fleas, how long should I treat her? Is one does enough?*
  - a. We typically recommend using flea products for 3 months and to treat the environment if you continue to have problems. Check your pet for flea dirt or flea poop. You can do this by brushing your pet and then wetting the fur and debris you remove on a white paper towel. If you see little red streaks on the paper towel, you have just discovered some flea poop.