

## "Fight the Bite" Today's Flea and Tick Treatments

As warm weather approaches we begin to think of protecting our pets from the summer parasites. This year protection from fleas, ticks and internal parasites is even more important than usual because parasite-borne diseases such as Rocky Mountain Spotted Fever, Lyme's disease have that were once limited to the coastal areas have begun to appear in the Midwest. The bite of Infected ticks can transmit these diseases to our pets jeopardizing their health and well-being.



There are many new preventatives on the market. We discuss the "pros" and "cons" of each so that you can make an educated decision about the type of treatment that is appropriate for your pet.

### TOP CHOICES FOR PROTECTION AGAINST FLEAS & TICKS



control will be best based upon your



Many types of flea and tick medication are currently being marketed. It is difficult to analyze which types of treatments provide the most effective flea, tick and Lyme's disease protection as well as the those which have the least side-effects and are safest for both pets and humans. We have analyzed the most popular products below. Each type of product has it's own pros, cons and attributes that would make it suitable for individual requirements.

EDT's top choices are noted, however, your choice of parasite made by analyzing the information below and making a decision individual needs.

### TOPICAL FLEA & TICK TREATMENTS

At the vanguard of flea and tick control are medications known as **Frontline®** and **Proticall®**. These topical treatments have received widespread veterinary approval for a variety of reasons, the most significant being their dual effectiveness on both fleas and ticks. These medications **DO NOT protect against heartworm disease** therefore, your dog will need to take an oral heartworm preventative in addition to these topical flea and tick treatments.

With the widespread outbreaks of Lyme disease and Rocky Mountain Spotted Fever, as well as the threat of ehrlichiosis, which is even harder to diagnose and treat in both animals and humans, it pays to eliminate the threat of ticks and fleas in the easiest, most effective ways possible," said Dr. Jefferson Israel, of Bedford Village Veterinary Hospital. "I recommend Proticall or Frontline for dogs and Frontline for cats.



### EDT # 1 Choice - PROTICALL®

Proticall® is a once-a-month topical flea and tick medication similar to Frontline® the main differences are that it is marginally water-soluble, and it cannot be used on cats. Proticall® comes in liquid form and is applied by dropper to the skin between the animal's shoulder blades. The active ingredient, Permethrin, kills flies and mosquitoes, as well as fleas and ticks, **on contact**. Because the Lyme's tick requires approximately 24 hours to transmit the Lyme's bacteria, this is the best line of defense against Lyme's disease. If your dog swims frequently Proticall may last only two weeks, but may (unlike Frontline) be applied safely

as often as every 2 weeks. This medication protects dogs and puppies from pests for about 28 days after application if they are not frequently bathed and do not spend a lot of time in the water-- it should not be applied to puppies less than 4 weeks of age. This medication DOES NOT protect against heartworm disease therefore, your dog will need to take an oral heartworm preventative in addition to Proticall.

**Pros:** Proticoll has been on the market for a long time and has been used on thousands of dogs. It has been proven to be safe enough to be sold "over the counter" without a veterinary prescription and can now be purchased at major pet stores and online pet suppliers. The cost is approximately \$20 per package, considerably less than many other flea and tick preventatives.

**Note:** Like most topicals, ProTICall can cause itching at the site the product is applied often enough to be a minor concern with its use. It does wash off readily with soap and water so it isn't a big problem when it occurs. This product only seems to last a week or two when dogs spend a lot of time in the water. It seems to last 2 to 4 weeks in most dogs on the average, though. Despite the minor problems with itchiness this is a very effective and very safe tick control product.

## EDT # 2 Choice - FRONTLINE® & FRONTLINE PLUS®

Its active ingredient, Fipronol, kills 96% of fleas within two hours of application and 100% within 24 hours. The PLUS in this new formula stands for a new insect-growth inhibitor called Methoprene, which wipes out all stages of fleas and ticks, rather than just the adult pests. In theory, Frontline Plus® furthers flea and tick prevention by killing all eggs, larvae, and pupae. Unfortunately, due to its potency, it cannot be used on dogs weighing less than 11 lbs. It is also not available for use on cats. Unlike Proticall, Frontline requires 24-48 hours to kill ticks, therefore it does not effectively protect dogs against Lyme's disease. If your dog will be traveling in endemic areas for Lyme's disease (Michigan, Minnesota, Wisconsin, the forested areas of the East Coast, and the Southern states) Proticall would be a better choice for flea and tick protection. Frontline is not water soluble and will not wash off. Frontline kills fleas and ticks effectively. Tick control lasts for 2 weeks to a month. The product should only be applied on a monthly basis but can be used in conjunction with other products for tick control if necessary. It works very well for flea control, so if that is also a problem it may be a good first choice. This medication DOES NOT protect against heartworm disease therefore, your dog will need to take an oral heartworm preventative in addition to Frontline.



**Note:** Like most topicals, ProTICall can cause itching at the site the product is applied often enough to be a minor concern with its use.



## FACTS ABOUT TOPICAL TREATMENTS

### **Pros:**

- **Protection for 3-4 weeks:** Depending on the brand of treatment, they protect dogs and/or cats from both fleas and ticks for about a month.
- **Fleas:** They purport to kill most fleas within a few hours of application and 100% within 24 hours.

- **Ticks:** Some exterminate ticks before they can attach themselves, and may repel them for as long as three months after application making them an effective Lyme's disease preventative
- **Easy to use:** apply between the animal's shoulders or on the back of the neck (large dogs two vials, one applied to the shoulders and one to the hindquarters)
- **Non-water soluble:** wetting the treated animal's fur doesn't reduce effectiveness.

### **Cons:**

- **May leave a greasy spot or stain** on an animal's fur for a couple days, until full absorption takes place (white-furred animals stain most easily).
- **Can be toxic to animals and humans:** Do NOT apply topical treatments to any area within reach of the animal's tongue, as this medication is toxic if ingested! It can also be harmful to humans if ingested or absorbed through the skin. Using rubber gloves during application can minimize risk to pet owners. Small children and babies should be kept away from the applied area for a day or two after application.
- On rare occasion, treatments may produce an **allergic reaction** in certain animals, causing them to lose fur in the treated area.



### **FLEA & TICK DIPS/BATHS**

Flea and tick dips vary quite widely in their effectiveness, lasting anywhere from two weeks to a month, depending on the brand used. Due to their limited efficacy and labor-intensive application, these treatments do not enjoy great popularity among veterinarians and pet owners. Our feline friends in particular do not appreciate the unceremonious dunking and may scratch their well-intentioned owners in the course of these highly undesirable bathing routines.

Dips/baths do have their place in the treatment regime in certain cases. They're very effective as a one-time, large-scale attack on a heavy flea or tick infestation, and, in cases where the animal or its owner have a serious flea allergy, these dips can provide some instant relief. However, they are not optimal for everyday prevention purposes because they are difficult to apply."

### **FLEA-ONLY TREATMENTS**

#### **ADVANTAGE®**

Still a popular product, Advantage® (BAYER) has been safely eliminating fleas since 1996.



#### **Pros:**

- Very convenient topical application
- One application should last one month

- Lowest price of all the products offering residual activity
- Excellent safety profile

### Cons:

- Some people feel topical application is messy. The oily spot behind the neck will be present for hours, until it fully spreads out over the entire body Will wash off with bathing or swimming
- Because this is a single agent insecticide, (kills fleas only) it should be combined with some kind of flea sterilizer to prevent an Advantage resistant flea population
- No activity against other parasites.

## FLEA COLLARS



treatments.

Despite their popularity among pet owners, flea collars may not offer the safest solution to your animal's infestation problem. Flea collars can strangle cats if they become caught on a branch or other object; therefore, some brands are now offering breakaway features to prevent strangulation. However, these preventive devices also pose a threat to infants, who can poison themselves by chewing on the collar. Flea collars are less effective at killing fleas than topical

**Preventic®** collars are effective against tick infestation. They have the drawback of being extremely toxic if ingested. This sounds like it wouldn't be a problem but dogs will eat these collars right off of another dog, for some reason. They are not recommended for multi-dog households, especially if one of the dogs is prone to playing with the other dog's collar or if one of the dogs chews things up frequently. They seem to last around 6 to 8 weeks.

## ORAL MEDICATIONS

### **PROGRAM®**

Program (active ingredient Lufenuron) was the first of the next generation flea products.

Lufenuron is given orally (one dose which must be given with food monthly) and after that any flea that bites the dog or cat is rendered sterile (but not dead). The flea dirt produced by these



fleas that normally feeds the larval fleas is rendered toxic. The life cycle of fleas could be broken in two new places, a concept that changed the face of flea control. Program is now available as an injectable product given every 6 months for cats only. Oral medications such as Program® are generally very effective at preventing flea infestations. They are highly recommended for people or animals with a severe flea allergy. Program is available as a monthly pill for dogs, and as either an in- food liquid or a six-month injectable treatment for cats. While it doesn't kill fleas on the spot (they die on their own within two to three weeks), it effectively exterminates them

by sterilizing them and preventing them from reproducing. This flea medication has been proven safe for kittens, puppies, and even pregnant animals, and should be administered every month for optimum effectiveness.

## Pros:

- Not toxic to mammals at any dose
- Excellent prevention and excellent in combination with topical products to prevent the development of insecticide resistant fleas
- Oral (or injected) administration means no messy oils on the coat

## Cons:

- Does not kill fleas (the manufacturer recommends the use of their companion product Capstar to kill fleas found on the pet)
- Does not kill ticks (the manufacturer recommends the use of a tick collar to kill ticks found on the pet)
- Does not protect against Lyme's disease
- Without another product, immediate results will not be seen

## CAPSTAR®



Capstar is the newest weapon against fleas and its use is somewhat different than the other products. Unlike the others, this product is not meant to provide a long-lasting residual effect. Instead, it is meant to be quickly in and out of the pet's system, providing the fastest route to a zero flea state.

## Pros:

- Begins killing fleas within 30 minutes of oral administration
- Excellent safety profile (can be used in any dog or cat weighing over 2 pounds)
- Given as a pill, so there is no messy oily spot on the back of the neck

## Cons:

- No residual flea control; this product is meant to clear a unique infestation. It can be used daily, but such use would be substantially less convenient and more expensive than the topical products
- Does not kill ticks (the manufacturer recommends the use of a tick collar to kill ticks found on the pet)
- Does not protect against Lyme's disease
- Some people are not comfortable with internal flea control

## SENTINEL®



This product combines Lufenuron, the active ingredient of Program, with the broad spectrum parasite control of Interceptor (milbemycin oxime). The resulting product, which is given orally once a month with food, not only sterilizes fleas but also controls hookworms, whipworms, roundworms and prevents heartworm infection.

## Pros:

- Excellent safety profile
- Broad spectrum parasite control
- Oral administration means no messy oils on the coat

## Cons:

- Does not kill fleas (the manufacturer recommends the use of their companion product Capstar to kill fleas found on the pet)
- Does not kill ticks (the manufacturer recommends the use of a tick collar to kill ticks found on the pet)
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## ENVIRONMENTAL FLEA TREATMENTS

Along with oral flea medications, veterinarians also recommend environmental treatments in cases of severe home infestation, or for people or animals with a serious flea allergy. Often available as “foggers” or sprays, these treatments help prevent flea problems within the home. The sprays function as both adulticides (i.e., they kill adult fleas) and Insect Growth Regulators (IGRs) that kill all other stages of fleas.

Unfortunately, these treatments are not entirely safe for humans. The popularity of environmental sprays is declining with good reason: the “foggers” contain toxic chemicals, and must therefore be used with great care. The chemicals in these sprays are especially harmful to the growing tissue of children and adolescents. Even sprays containing Permethrin, a low-toxicity botanical flea-killer, can lead to allergic reactions and even systemic problems. Remember to follow label directions carefully, and limit spray use as much as possible.

Flea-only medications are extremely useful in the event of a heavy infestation or a serious flea allergy. However, apart from these situations, two-in-one treatments such as Proticall® and Frontline® are the preferred treatments.



## THE IMPORTANCE OF TICK CONTROL

Now that cases of Lyme disease and ehrlichiosis are on the rise, pet owners need to become cognizant of the preventive measures available to them. If not treated routinely, household pets can contribute significantly to the spread of these dangerous tick-borne diseases among humans. Due to their low toxicity, easy application, and dual efficacy, topical treatments have become vital weapons in the arsenal of pest control.