What You Should Know about Flea and Tick Products

Protecting your dog or cat from fleas and ticks is an important part of responsible pet care.

Although there are many brands of over-the-counter flea and tick products available at supermarkets and pet supply stores, it is critical to read their labels and consult with your veterinarian before using them on your companion. These products may contain ingredients that could harm pets and children.

Recent News

Due to a sharp increase in the number of incidents being reported from the use of spot-on pesticide products for flea and tick control for pets, the Environmental Protection Agency announced in April 2009 that it is intensifying its evaluation of whether further restrictions on the use of these products are necessary to better protect pets.

Recent Studies

The Center For Public Integrity released information on its website for its Perils of the New Pesticides study in 2008. At least 1,600 pet deaths related to spot on treatments with pyrethroids were reported to the EPA over the last five years, according to an analysis of EPA pesticide incident exposure data by the center. Overthe-counter flea and tick products could also pose a threat to human health, according to some experts.

The center reported that pyrethroid spot-ons also account "for more than half of 'major' pesticide pet reactions reported to EPA over the last five years—that is, those incidents involving serious medical reactions such as brain damage, heart attacks, and violent seizures. In contrast, non-pyrethroid spot on treatments accounted for only about 6 percent of all major incidents."

The Center For Public Integrity's study said pyrethroid-based flea and tick treatments are approved for sale by the Environmental Protection Agency (EPA), and they are readily available at grocery stores, specialty pet retailers, and hardware stores, "but they are also linked to thousands of reported pet poisonings, and they have stirred the ire of pet owners, the concern of veterinarians, and the attention of regulatory agencies."

In 2000, the Natural Resources Defense Council (NRDC) released a report called Poisons on Pets: Health Hazards from Flea

and Tick Products. The report also demonstrated a link between chemicals commonly used in flea and tick products and serious health problems.



Besides pyrethroid-based products, ingredients to be wary of are organophosphate insecticides (OPs) and carbamates, both of which



are found in various flea and tick products. A product contains an OP if the ingredient list contains chlorpyrifos, dichlorvos, phosmet, naled, tetrachlorvinphos, diazinon, or malathion. If the ingredient list includes carbaryl or propoxur, the product contains a carbamate. According to the NRDC, the potential dangers posed by these products are greatest for children and pets. There is reason to be concerned about long-term, cumulative exposures as well as combined exposures from the use of other products containing OPs and carbamates. The Center For Public Integrity's study said permethrin is classified under the most toxic category by NRDC because the EPA says it is "likely to be carcinogenic to humans" if ingested orally.

The Products

The NRDC's report lists flea- and tick-control products marketed under the following major brand names that have been found to contain OPs: Alco, Americare, Beaphar, Double Duty, Ford's Freedom Five, Happy Jack, Hartz, Hopkins, Kill-Ko, Protection, Rabon, Riverdale, Sergeant's, Unicorn, Vet-Kem, Victory, and Zema. To protect their pets and children, consumers should consult with a veterinarian before purchasing any over-the-counter (OTC) products.

The Effects

According to the NRDC, there are studies that show OPs and carbamates can harm the nervous system. Children can be especially vulnerable because their nervous systems are still developing. For pets, the data is limited, but according to NRDC, many companion animals appear to have been injured or killed through exposure to pet products containing OPs. Cats are particularly vulnerable, since they often lack enzymes for metabolizing or detoxifying OPs and can ingest OPs by licking their fur.

What about the EPA?

Each year, millions of Americans purchase over-the-counter flea and tick products believing that they couldn't be sold unless they were proven safe. But the Environmental Protection Agency (EPA) did not begin to review pet products for safety until 1996. There is a substantial backlog of products waiting to be tested, so many pet products containing potentially harmful pesticides still make their way onto store shelves.

Reducing the Risks

The HSUS recommends the following precautions be taken to reduce the risks to pets and humans during the flea season:

- Use alternatives to pesticides to control fleas and ticks: Comb your pet regularly with a flea comb, vacuum frequently and dispose of the bags immediately after use, mow areas of the lawn where your dog spends time, wash pet bedding weekly, and wash your pet with a pesticide-free pet shampoo. In addition, to protect cats from fleas and ticks, as well as a host of other outdoor hazards, cats should be kept indoors at all times.
- Always consult a veterinarian before buying or using any flea or tick control product on your pet.
- Never use flea and tick products designed for dogs on your cat, or vice versa.
- Remember never to apply pesticides to very young, elderly, pregnant, or sick animals unless directed to do so by a veterinarian.
- Always read the ingredients, instructions, and warnings on the package thoroughly.
- Avoid OP-based products by looking for any of these active ingredients: chlorpyrifos, dichlorvos, phosmet, naled, tetrachlorvinphos, diazinon and malathion. Avoid products with carbamates by looking for the chemical names carbaryl and propoxur on the label.
- Consider using a product with insect-growth regulators (IGRs), which are not pesticides. These will prevent the next generation of fleas but will not kill insects already on your pet. Common and effective IGR products include those made with lufenuron (found in Program® and Sentinel® and avail-

- able by prescription), methoprene (in Precor®), and pyriproxyfen (in Nylar® and EcoKyl®).
- You might want to consider several topical products (available through veterinarians) that are insecticides designed to have fewer toxic effects on the nervous systems of mammals: imidacloprid (found in Advantage®), fipronil (in Frontline® or Top Spot®), and selamectin (in Revolution™).

If you suspect your pet may have suffered negative health effects as a result of a flea product containing OPs or carbamates, consult with your veterinarian immediately. If you think a child has ingested a pesticide, call your local poison control center. Be sure to report all such incidents to the EPA's National Pesticide Telecommunications Network at 800-858-7378.

The HSUS would also like to keep track of these cases. Please send your contact information, the product name, a brief description of the health problem, and a brief summary of your veterinarian's findings to The HSUS at the following address:

The Humane Society of the United States Companion Animals Department: Flea Products 2100 L St. NW Washington, D.C. 20037



Adapted from material originally developed by applied animal behaviorists at the Dumb Friends League, Denver, Colorado. ©2000 Dumb Friends League and ©2003 The HSUS. All rights reserved.

This material is brought to you by the Maddie's Fund, the Maddie's Pet Rescue Project in Mobile.

Maddie's Fund,® The Pet Rescue Foundation, (www.maddiesfund.org) is a family foundation funded by PeopleSoft and Workday Founder Dave Duffield, and his wife, Cheryl, to help create a no-kill nation. The first step is to help develop programs that guarantee loving homes for all healthy shelter dogs and cats throughout the country. The next step is to save the sick, injured and poorly behaved pets in animal shelters nationwide. Maddie's Fund is named after the family's beloved Miniature Schnauzer who passed away in 1997.