



Fleas

Pest Note



Photos courtesy of:
Vetinfo.com, Kevin S. Baldwin and Derek Zelmer



Flea



Flea Eggs and Feces



Flea Larva



Flea Pupae

Photo: University of Florida

Fleas—what are they?

Fleas are small, dark brown or reddish brown, from 1 to 4 mm long, with flattened bodies. They are wingless and can jump up to 20 cm vertically and 41 cm horizontally.

Fleas have four stages of development: egg, larval, pupal and adult. It takes from 2 weeks to several months to go from egg to adult depending on the species, temperature, humidity and food availability. After each blood meal, females lay 4 to 8 smooth, round, light-coloured, sticky eggs. She can lay 25 eggs per day, and roughly 800 in her life. Eggs hatch into very small, hairy, wormlike larvae that are whitish with brownish heads. The larvae are from 1.5 mm to 5 mm long. They feed on organic debris, their own cast skins and dried blood in adult flea excrement. Larvae can survive up to 200 days even in unfavourable conditions and travel up to 30 cm per minute. They will spin silken cocoons covered with particles of dust, fibres, sand and organic debris and later emerge as an adult flea. Adult fleas may remain in the cocoon for several months until favourable conditions arise, such as a rise in temperature and carbon dioxide levels. Vibrations created by the presence of humans and pets will also stimulate their emergence and activity.

What can they do?

Unlike some pests that can be found around the home, fleas cause discomfort and irritation to both pets and people. Fleas are not just an annoyance, some people and animals suffer allergic reactions to flea saliva resulting in rashes. Flea bites create a small, hard, red, itchy spot, slightly-raised and swollen with a single puncture point at the center. The bites often appear in clusters or lines, and can remain itchy and inflamed for up to several weeks. Fleas can also lead to hair loss as a result of frequent scratching and biting by the animal, and can cause anemia in extreme cases.

Besides these problems, fleas can also transmit disease. For example, fleas transmitted the bubonic plague between rodents and humans by carrying bacteria. Endemic typhus fever, and in some cases tapeworm can also be transmitted by fleas.

Fleas usually feed several times a day, but can survive several weeks without a meal. Adult fleas usually leave the host after feeding; however, flea eggs, larvae or pupae may be found on pets. The peak season for flea infestations outdoors in most parts of Canada is from early August to early October. In excessively dry, hot summers fleas tend to dehydrate and die.

How can I manage them?

To break the flea cycle successfully, the home, pet and often times, the yard must be treated. The manner in which these treatments are done can greatly influence the results. The homeowner must rely on a combination of sanitation and chemical treatments.

Vacuum carpets and cushioned furniture daily. Clean around cracks and crevices on floors and along baseboards and basement. Steam cleaning carpets will kill fleas in all stages with the hot steam and soap. Wash all pet bedding and family bedding in hot, soapy water every 2 to 3 weeks. Lift blankets by all four corners to avoid scattering the eggs and larvae. If an infestation is severe, replace old pet bedding.



Vacuum daily to help
control fleas.

Responsible Pesticide Use

Before Purchasing a Pesticide

- Identify the pest correctly.
- Use physical control methods and alternatives to pesticides.
- Read the label directions and safety precautions before buying the product. The label must include the name of the pest to be controlled and the treatment location (e.g. indoor, outdoor, garden uses, pet treatment).
- Purchase only the quantity of product needed for the treatment.
- Consider hiring a licensed pest control operator.

Using a Pesticide

- Carefully read all label instructions and precautions before using pesticides.
- Do not drink, eat or smoke while applying pesticides.
- Persons and pets should vacate the area during treatment. Cover or remove aquaria.
- If kitchen area is to be treated, cover or remove food, dishes and utensils.

After Using a Pesticide

- Always wash your hands thoroughly after handling any pesticide product.
- Do not permit persons or pets to contact treated surfaces until residue has dried completely.
- Provide adequate ventilation of treated areas after use.





Wash family and pet bedding in hot soapy water.
Photo: Debra Andriulli



Diatomaceous earth is non-toxic to humans and pets.



Bathing the pet in soap and water can be useful in reducing flea numbers.
Photo: Joel Ignacio

Inspect pets regularly, especially during peak flea season. Look for black particles the size of milled pepper on the skin. Use a flea control product once an infestation has occurred. Before using a product, consult with a veterinarian to determine the best treatment for your pet and to limit the amount and combination of chemical exposures. Be sure to use flea and tick control products only on the animal specified on the product label – dog products for dogs and cat products for cats. It is equally important to keep the amount and combination of different chemical exposures to a minimum, especially if pets are already taking some form of medication.

Flea combs can be used to remove some fleas, flea feces, and dried blood. Focus combing where the most fleas congregate on the pet, usually the neck or tail. When fleas are caught, kill them in hot soapy water. Flea collars will prevent fleas from biting your pet, but do not provide adequate control once an infestation has occurred. Some animals may develop a skin rash from flea collars. Powders are not as effective for pets with thick coats. Foams may be preferable to sprays for nervous pets, especially cats. Flea shampoos will kill fleas on direct contact but provide little residual control. Spot-on treatments are applied between the shoulder blades and near the back of the neck. Additional locations, such as on the back at base of tail, may be necessary for larger animals. These provide longer term control of fleas for approximately one month. Oral medication is available through veterinarians.

Since product formulations and uses vary, it is important to read label directions carefully. Insecticides do not control flea eggs, but will control adult fleas and larvae. A repeat treatment is often required to break the cycle. Reapplication of a residual insecticide is generally not required within a 14-day interval. Treat around doors, window frames and foundations with a residual insecticide to help prevent entry into the home. Check that all screens are in good repair. Treat the yard and around areas where pets rest and play. Cover children’s sandboxes when not in use.

How can I control fleas in and around the home?

There are a number of products available to help control fleas in and around the home. They must not be used on pets unless otherwise indicated on the label.

Domestic users can purchase boric acid. The dust form of boric acid should be applied as a light coating. If the coating is too thick, the insect will simply avoid it. Boric acid is ingested while the insects clean themselves. It takes about 10 days to be effective and can continue to be used for many years if kept dry.

Diatomaceous earth, a fine powder also known as silicon dioxide, consists of aquatic microorganisms. As the insects crawl over the fine powder, their waxy outer protection is scratched, causing them to dehydrate and die. Diatomaceous earth is non-toxic to humans and pets and will remain active as long as it is kept dry.

Silica aerogel is usually combined with pyrethrin. The pyrethrin component disables the insects while silica aerogel works like diatomaceous earth. Most pyrethrin products can kill adult fleas, but lack the residual activity necessary for complete control. A micro-encapsulated slow time-released pyrethrin formulation which allows the insecticide to be released over a longer period of time is available. Pyrethrin products have very low toxicity for humans and pets, but may cause an allergic reaction in some individuals. Active ingredients such as permethrin and d-trans allethrin are synthetic copies of pyrethrum and act on the pest in the same way. Some pyrethroids provide a longer duration of control of fleas compared to pyrethrins.

The insect growth regulator methoprene acts on the immature life stages of fleas, preventing adults from developing and emerging. Methoprene is effective for three to seven months and is considered to be of very low toxicity to humans. It can be used safely inside infested rooms.

Pyriproxyfen is another insect growth regulator which mimics the growth of hormones of fleas. It prevents the immature fleas from becoming adults.

Did you know...

Fleas hind legs are so powerful they can jump distances up to 200 times their body length, making the flea the best jumper out of all animals in comparison to body size.



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- Wipe clean all surfaces that come in direct contact with food, such as counters, tables and stovetops, including indoor and outdoor surfaces.
- Always store pesticides out of reach of children and pets and away from food and beverages.

Accidental Poisoning

- Call a poison control centre immediately and seek medical attention.
- Take the pesticide container or label with you to the emergency facility or physician.
- Follow first aid statements on the label.
- In case of accidental poisoning of pets seek veterinary attention immediately.
- Report pesticide incidents to manufacturers (phone number on label). They are required to send them to Health Canada.

Disposing of Pesticides

- Do not reuse empty pesticide containers. Wrap and dispose of in household garbage.
- Follow the product label instructions or contact provincial authorities for disposal of pesticides.

Note: These are general recommendations. Consult the label for specific instructions. When in doubt, contact a professional.

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