



# Household & Public Health

*Department of Entomology*

## FLEAS

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Adult fleas are small insects (under 1/4 inch) of dark reddish-brown color. They lack wings and have laterally compressed bodies enabling them to move easily through body hairs. They have three pairs of legs with the back pair modified for jumping.

There are several kinds of fleas. Adults of each live on the blood of animals and must have it to reproduce. Each species of flea prefers to live and feed on a certain kind of animal but when hungry will attack a wide variety of warm-blooded animals including humans. The cat flea is the most common and is usually the species found on cats and dogs and in homes. The dog flea looks and acts like the cat flea but is less common. The true human flea is the least common. Human fleas may occur in poorly cleaned homes. The occupants are then sources of infestation for neighbors and others with whom they may come in contact. Other species of fleas are associated with most other warm-blooded animals. There is no such thing as a sand flea which can live in the soil without having to feed on animals.

Female fleas deposit their eggs on their hosts, in pet bedding, on floor and furniture, or on other accessible places. Eggs laid on the host are not firmly attached and soon fall off. In a few days the eggs hatch into slender, white, legless larvae with bristly hairs. These tiny larvae are scavengers that feed on dirt, body wastes, and many kinds of debris. In about 12 to 15 days the full grown larvae change to pupae and then to adults. The adults immediately search for animals upon which to feed.

Pet owners returning from a vacation often find their home overrun with active adult fleas. Immature fleas present when the owners left have completed development, and the newly emerged hungry adults are searching for a blood meal. Also, homeowners or new tenants moving into vacant homes or apartments where previous tenants had dogs or cats may also experience an adult flea problem.

Flea control should be directed to cats and dogs to kill adult fleas and to breeding sites to eliminate both young and adult fleas.

### CONTROL ON DOGS AND CATS

Pets can be treated for fleas by using insecticide sprays, dusts, foams, shampoos, collars, feed additives, and pills. Insecticides registered for pets include carbaryl (Sevin), chlorpyrifos (Dursban), malathion, naled, propoxur, pyrethrins, permethrin, a feed additive, cythioate (Proban), and a pill, lufenuron (Program). Check with a veterinarian for specific products containing these insecticides.

Always read and follow insecticide label directions. Do not use any insecticides on a pet unless the label specifically states that it can be used on that pet species. Follow restrictions such as age of animal to be treated, and precautions such as not treating sick animals or using in conjunction with other medications.

Other products are available for flea control such as pet collars equipped with electronic sounding devices and combs for mechanical removal of fleas. These devices have not been proven to repel or control fleas and are not recommended.

### CONTROL IN HOMES

Before any insecticide is applied for flea control it is advised to vacuum the premises thoroughly, especially pet resting areas, to remove developing fleas. The entire house should be vacuumed, especially carpets, under furniture, in areas where pets frequent, in cracks and crevices along walls, and in all upholstered furniture. The vacuum bag contents should be destroyed by burning or should be placed in airtight plastic bags and discarded as soon as the house has been cleaned to get rid of the accumulated flea larvae and pupae.

To control fleas on carpets and in furnished rooms, use a spray containing pyrethrins, malathion, or propoxur (Baygon). These sprays can be applied as a light mist to floors, carpets, upholstered furniture, and baseboards. Check label directions for proper mixing and use instructions. Before spraying delicate fabrics, treat a small portion to be certain that the spray will not stain the fabric. Carbaryl (Sevin) can be applied as a dust treatment.

Methoprene (Precor) is available as a residual fog treatment. It is important to read the directions carefully to insure proper application. Methoprene is an insect growth regulator and acts only on immature life stages of fleas, preventing adult fleas from developing. Flea eggs deposited on and larvae crawling onto methoprene treated areas will not develop into adult fleas. Existing adult fleas and flea pupae are not affected. If adult fleas are present, the use of an adulticide may be necessary for immediate relief. Insecticides available for use in homes by professional pest control applicators include: chlorpyrifos (Dursban), diazinon (Knox Out), bendiocarb (Ficam), propretamphos (Safrotin), and fenoxycarb (Torus).

## **CONTROL IN BARN, ANIMAL QUARTERS, AND YARDS**

The success of flea control on animals depends upon eliminating infestations in kennels, beneath buildings, and in barns, yards, and other places frequented by infested animals. First, remove litter, manure, or debris, and spray or dust the affected area. Sprays are best for large-scale treatment.

Insecticides that can be used for this purpose include carbaryl (Sevin), diazinon, malathion, methoxychlor, and propoxur (Baygon). Before using any of these insecticides always read and follow label directions and precautions. Insecticides available for outdoor flea control by professional pest control operators only include: chlorpyrifos (Dursban), fenthion (Baytex), propoxur (Baygon), bendiocarb (Ficam), and dioxathion (Deltic).

Scientific Name: Cat flea — *Ctenocephalides felis* (Bouche)

READ AND FOLLOW ALL LABEL INSTRUCTIONS. THIS INCLUDES DIRECTIONS FOR USE, PRECAUTIONARY STATEMENTS (HAZARDS TO HUMANS, DOMESTIC ANIMALS, AND ENDANGERED SPECIES), ENVIRONMENTAL HAZARDS, RATES OF APPLICATION, NUMBER OF APPLICATIONS, REENTRY LEVELS, HARVEST RESTRICTIONS, STORAGE AND DISPOSAL, AND ANY SPECIFIC WARNINGS AND/OR PRECAUTIONS FOR SAFE HANDLING OF THE PESTICIDE.

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