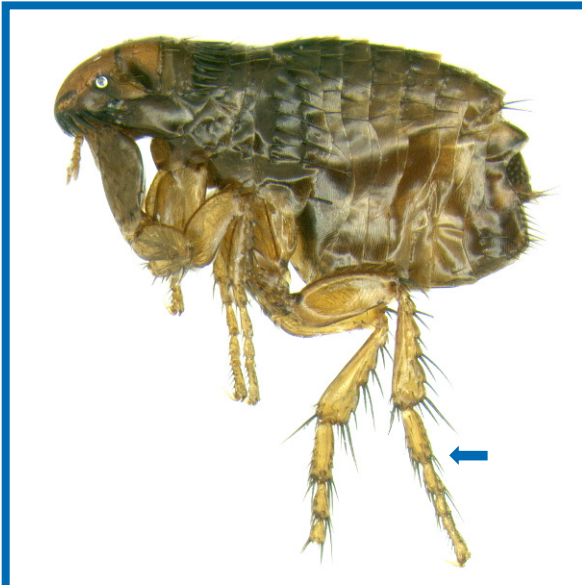


## Fleas

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Fleas are parasites of many animals including cats, dogs, rodents, birds, and bats. Cat fleas (*Ctenocephalides felis*) are the most common fleas that infest homes and attack humans, although cats, dogs and some wild animals (e.g., raccoons and opossums) are their primary hosts. Unlike most fleas, cat fleas remain on their host throughout

their entire life cycle. Although fleas are capable of transmitting disease-causing organisms to humans, this rarely occurs in Wisconsin. Fleas more commonly transmit tapeworms to cats and dogs.



Cat fleas are brown and flattened, and have large hind legs (see arrow).

**Appearance:** Adult cat fleas are brown, flat and wingless, have large hind legs adapted for jumping, and are less than  $\frac{1}{8}$  inch in length. Larval cat fleas are about  $\frac{3}{16}$  inch in length and resemble tiny, white, hairy caterpillars. The presence of dried blood and dark reddish-brown or black flea excrement (i.e. flea 'dirt') may be the first noticeable clue that a pet has fleas.

**Symptoms and Effects:** Fleabites on human skin may result in raised, red bumps that itch. These symptoms may persist for five days or more. Bites found

on humans are typically in clusters on lower legs. Some people are resistant to fleabites and may not notice their presence. Other people, as well as pets, may experience fleabite allergic dermatitis, resulting in more intense itching, hair loss and reddening. Scratching these areas may result in secondary infections.

**Life Cycle:** Adults fleas lay approximately 20 to 50 eggs per day on their host. Eggs may fall from the host and survive in carpeted surfaces. Eggs hatch into larvae within one to 12 days. Larvae molt three times over a period of seven to 15 days, then spin cocoons and develop into adults. Larvae avoid light and require humidity above 75%. Unfavorable temperatures and humidity may extend larval periods to six months or longer, and pupal periods to 12 months or longer. Adult emergence is stimulated by noise or vibration indicating the presence of a potential host. Typical emergence cues include vacuuming or being walked upon. Adults fleas live for one to 12 months. Under optimal conditions, the cat flea life cycle spans approximately 18 to 40 days. Cat fleas may be found year-round, but are more prevalent during spring and summer due to more optimal temperatures for larval development. Adults feed on blood using sucking mouthparts. Larvae feed on a combination dried blood and excrement (called flea "dirt") that accumulates in pet resting areas. Adults may survive for weeks without a blood meal, but females require a blood meal from a non-human host before laying eggs.

## **Control:**

**For pets:** Be sure to consult your veterinarian before selecting a specific product to treat your pet, as different breeds of cats and dogs have different tolerances to particular active ingredients. In general, topical, oral or flea collar applications of insecticides



**Flea 'dirt' (a combination of dried blood and excrement) indicates a flea problem.**

provide better flea control than shampoos, dips, powders, or sprays. Apply topical chemicals carefully. Follow label directions and apply where pets are unable to lick (e.g., the nape of neck or between shoulder blades). Effective topical and oral pet treatments (available over the counter) commonly contain one or more of the following active ingredients: fipronil, imidacloprid, nitenpyram, permethrin, or selamectin. Flea collars contain insect growth regulators such as methoprene and pyriproxyfen, or insecticides such as permethrin and tetrachlorvinphos. Ineffective flea treatments include vitamin B1 or yeast supplements, herbal collars and ultrasonic devices.

**For home:** Indoor areas should be thoroughly vacuumed and treated with sprays or foggers (oftentimes referred to as

"bombs"). The most effective of these products are those containing an insecticide and an insect growth regulator (e.g., methoprene or pyriproxyfen). These products prevent eggs from hatching and kill larvae. When treating, target areas such as carpets, furniture crevices, pet beds and any other areas frequented by pets. Follow re-entry directions when using foggers (see the label of the product that you select for this information). Other effective chemical treatments may contain allethrin, dichlorvos (Vapona-DDVP), resmethrin, or tetramethrin. Products containing pyrethrins also may be used, although these products are contact poisons with little residual effect. If you have a flea problem, but have no pets, then you may have wild animals such as raccoons, opossums or squirrels nesting in an attic, fireplace or crawlspace. Seek out these areas for possible treatment. Although breeding flea populations outside of homes are rare in Wisconsin, such populations can potentially occur in pet resting areas, animal nests or sand or gravel areas in the landscape.

**For more information on fleas:** Contact your county Extension agent.