# **Fleas**

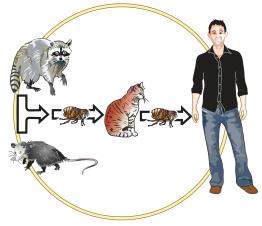
#### Status

- ☐ Blood feeder
- ☐ Can transmit pathogens through bite or feces

#### **General Information**

Wherever dogs, cats, or other pet mammals are allowed inside the house, fleas may become a problem. Fleas will bite humans as well as domestic animals. Fleas feed on the blood of vertebrate animals and cannot breed or survive without it.

Flea-borne Typhus Transmission Cycle



### Flea-borne Typhus

Adult fleas can inflict painful and itching bites. The discomfort following the bite may last from several days to a week. In addition to painful bites, fleas in Orange County can transmit **flea-borne typhus**, a disease caused by bacteria that are found in some fleas and their feces. The bacteria are transmitted from the female fleas to their offspring, and also to the host animal primarily through bites.

#### What are the Symptoms?

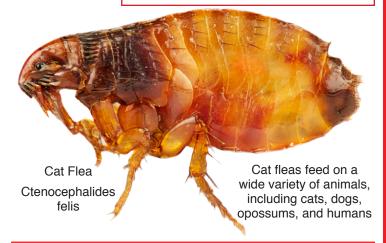
Symptoms begin from one to two weeks after exposure, and include: fever, headache, chills, body aches and pains, and rash on chest, back, arms and/or legs. Many cases require hospitalization.

#### How is the Disease Treated?

This disease is easily treated with antibiotic therapy.

# How Have Humans Contributed to the Continued Threat of this Disease?

Humans have played an active role in the continued threat of this disease by introducing non-native opossums, cats, and rats, all of which carry fleas. People have also controlled natural predators and created other environmental conditions that are attractive to these introduced species, which are often present in significant numbers outdoors in commercial and residential communities. Leaving pet food out at night may be all it takes to attract a flea-carrying animal, so keep pet food indoors. Keep domestic cats and dogs indoors, away from exposure to fleas.



## **Life Cycle**

Fleas have four stages in their life cycle: egg, larva, pupa, and adult. Female fleas require vertebrate blood to produce viable eggs. She often lays her eggs directly on skin or fur of the host, such as a pet dog or cat. The eggs eventually fall off in places where the pet spends most of its time, such as a chair, sofa, rug, carpet, or bed. About 2-3 weeks later, the wormlike larvae hatch and feed on organic matter. Larvae can be found in cracks in the floor, among carpet fibers, and in other hiding places. A home may become heavily infested with developing larvae before the infestation is noticed. As they mature, they outgrow their skin, grow a new skin layer, and shed the old one, a process called molting. After the third growth-molt cycle, usually 2-3 weeks later, the flea enters the pupal stage. About a week later, the adult flea emerges from the pupal case. The process of changing body forms while maturing is called metamorphosis.

#### **Protect Yourself**

The first step in controlling fleas is to make sure pets are on a flea control program. Fleas can be controlled inside or outside the home by a combination of good housekeeping, sanitation, and the proper use of insecticides that are registered for use on fleas. Indoors, clean infested rooms by thoroughly vacuuming the carpeting, baseboards, and upholstered furniture. Wet mop bare floors and other exposed surfaces with hot soap and water. After a thorough cleaning, insecticides designed for flea control can be applied to kill remaining eggs, larvae, and adults. Treat pets with commercially available products designed to control adult fleas. Consult your veterinarian for advice on the proper products. Fleas in the yard and in pet areas usually are controlled by removing weeds and dense vegetation, and periodically applying appropriate insecticides. Before treating, be sure to remove all animals from the area. Return the animals to the treatment area only when the product's label says it is safe to do so. Always follow the instructions printed on the product label.

