

Fleas: Life Cycle and Control

Understanding the life cycle of a flea can help you prevent or eliminate an infestation in your home or on your pet.

Fleas have a typical insect four stage life cycle:

Stage 1: Eggs

Flea eggs are pearly white ovals about 1/50 of an inch in length. Although they are laid in the hair of the pet, the eggs are not sticky and easily fall off into the environment. Therefore, flea eggs can be found any place a flea-infested pet has access. Female fleas can lay 20-50 eggs a day and more than 2000 in a lifetime. Eggs usually hatch in 1-6 days, depending on temperature and humidity.

Stage 2: Larvae

Newly hatched flea larvae are slender, white creatures about 1/5 of an inch in length. The larval stage lasts 5-11 days, after which larvae pupate. Larvae avoid light and move downward in response to gravity. As a result, they are found deep in carpet fibers or outside under branches and leaves. They are not usually found in open lawn areas. They accumulate in areas where the animal spends a great deal of time, such as resting and sleeping areas.

State 3: Pupae

Within a small cocoon, flea larvae change to pupae. In 7-14 days, pupae fully develop into adult fleas. However, a fully developed flea can stay inside the cocoon for up to 180 days. Insecticides do not usually kill fleas that are still inside the cocoon. Adult fleas will emerge from the cocoon at varying times which is why fleas continue to appear for several months after an insecticide application has killed the adult flea population on an animal or in a home.

Stage 4: Adult

As soon as an adult flea emerges from its cocoon, it begins seeking a host for a blood meal. Newly hatched fleas move directly to the top of carpet pile, bedding or other surfaces where they are more likely to encounter a passing host. Once on its host, it begins feeding in minutes. When a flea bites to feed, a chemical in its saliva enters the wound to prevent the blood from clotting as it feeds. This chemical in the flea saliva can cause mild to severe allergic reactions in the pet. Flea Allergy Dermatitis (FAD) is a common example of a severe reaction. Mating occurs on the host and egg production begins within 48 hours of a females first blood meal. With this event, the life cycle begins again.

Other Important Flea Facts

There are more than 2,200 species of flea, but *Ctenocephalides felis*—the cat flea, is the flea most commonly found on both dogs and cats.

Cat fleas will feed on humans temporarily if their preferred hosts (dogs & cats) are unavailable. However, fleas that jump onto humans are nearly always newly emerged and unfed adults seeking a host for their first meal.

Fleas are the primary carrier of the tapeworm parasite. Flea larvae ingest tapeworm eggs and when adult fleas are ingested by the dog or cat (typically during grooming or biting to relieve the itch of a flea bite), tapeworms eggs move to the intestines to live and multiply.

Under most household conditions, fleas will complete their life cycle in 3 to 4 weeks. However, in the hot, humid summer months, the entire life cycle can be as short as 12 to 14 days

Flea Diagnosis and Control

A flea problem can be confirmed in several ways:

- Examine the pet with a strong light for evidence of adult fleas or flea feces (looks like fine-ground black pepper).
- Comb the pet with a very fine tooth comb that traps fleas & feces.
- Moisten combings on a white paper towel—flea feces will turn a red-brown color as digested blood dissolves.

To eliminate a flea infestation quickly, it is usually best to treat both the environment (house and/or yard), as well as your pets. We recommend Advantage® or Frontline® to kill adult fleas on your pet. Using either of these products alone for several months will *eventually* rid your pet and home of fleas. However, it is usually best to also treat your house at the same time you treat your pet. We recommend Siphotrol® Plus II to treat areas in the home. This spray has an insect growth regulator (IGR) which is an insect growth hormone and alters the maturation of the eggs and larvae to prevent them from developing into the pupa stage. This combined approach will more quickly eliminate fleas from your pet and home.