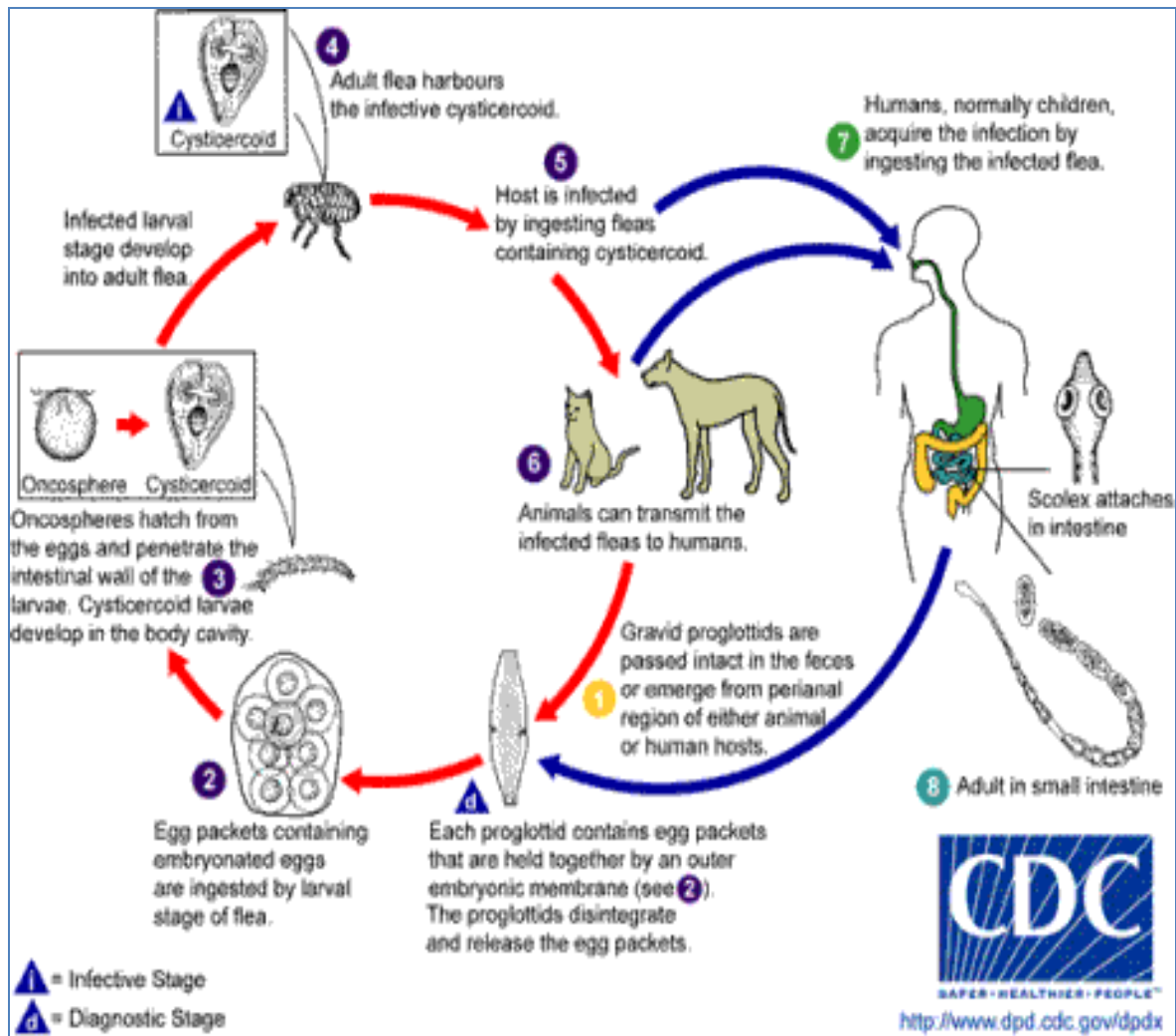


FLEA MANAGEMENT

Understanding the Flea Life Cycle

- There are several stages to its life cycle: egg, larva or caterpillar, pupa or cocoon, and adult. The length of time it takes to complete this cycle varies depending upon the environmental conditions such as temperature, humidity, and the availability of a nourishing host.
- The adult female flea typically lives for several weeks on the pet. During this time period she will suck the animal's blood two to three times and lay twenty to thirty eggs each day. She may lay several hundred eggs over her life span. These eggs fall off of the pet into the yard, bedding, carpet, and wherever else the animal spends time.
- These eggs then proceed to develop where they have landed. Since they are about 1/12 the size of the adult, they can even develop in small cracks in the floor and between crevices in carpeting. The egg then hatches into larvae. These tiny worm-like larvae live among the carpet fibers, in cracks of the floor, and outside in the environment. They feed on organic matter, skin scales, and even the blood-rich adult flea faeces.
- The larvae grow, molt twice and then form a cocoon and pupate, waiting for the right time to hatch into an adult. These pupae are very resilient and are protected by their cocoon. They can survive quite a long time, waiting until environmental conditions and host availability are just right. Then they emerge from their cocoons when they detect heat, vibrations and exhaled carbon dioxide, all of which indicate that a host is nearby. The newly emerged adult flea can jump onto a nearby host immediately.
- Under optimal conditions, the flea can complete its entire life cycle in just fourteen days. Just think of the tens of thousands of the little rascals that could result when conditions are optimal!





Treatment of the Animal

Vectra 3D

- Quick onset of activity within 2 hours; kills fleas in 6 hours
- Prevents the development of fleas, flea eggs, larvae and pupae for one month
- Convenient topical treatment with patented applicator
- Quick drying, non-greasy and water resistant



Repels and kills for one month

- Fleas, ticks, mosquitoes, sand flies, mites, biting & sucking lice

- Dinotefuran: quick-kill
- Permethrin: adulticide and repellent
- Pyriproxyfen: IGR prevents development of all immature flea stages

- See video for application of topical medication
- A point to note when applying topical medication around the shoulder blades; turn the dog's or cat's head all the way it can go to the body and apply the medication more cranial than where the mouth of the dog or cat reaches. This prevents the animal from being able to lick the medication.

Frontline Plus

- Fast-acting
- Waterproof
- fipronil and (S)-methoprene, effectively target fleas in all stages



- See websites

Revolution- selamectin

- Kills adult fleas and prevents flea eggs from hatching for one month
- Prevents and controls flea infestations
- Prevents heartworm disease
- Treats and controls ear mite infestations
- Controls American dog tick infestations



- See website – click on the options available

Trifexis

- 3-way parasite protection against fleas, heartworm, and intestinal worms available in a monthly chewable tablet.

- Milbemycin oxime is used as a heartworm preventive
- Spinosad – kills adult fleas



- See website – click on the options available

Controlling the Flea Population in the Environment

Indoor Environment

- Wash all bedding in soapy, hot water especially if the pets spend time on your bed.
- All of the carpeting should be vacuumed thoroughly and the vacuum bag thrown away.
- Steam cleaning the carpet can kill some of the larvae as well.
- Vacuuming and shampooing a carpet will still leave a good percentage of live fleas so some sort of chemical treatment may be necessary.
- Highly effective foggers. The most effective products are those which contain both an ingredient to kill adult fleas and an ingredient to kill the other life cycle stages. The latter is called an insect growth regulator.
- Methoprene is one such growth regulator.
- Aerosol foggers may not penetrate well enough, in some cases, to kill all the hiding fleas and larvae.
- Another option for indoor control is a sodium borate product that is applied to carpeting.

Outdoor Environment

- Sprays and pelleted insecticides are generally used after dog houses and kennels are cleaned thoroughly.
- An insect growth regulator is a good choice here as well.
- Pyriproxifen, is more stable in sunlight and lasts longer outdoors than Methoprene.
- Certain non-toxic nematodes (tiny worms) can also be spread in areas of the yard which are warm and moist and which pets and fleas frequent. The nematodes feed on the flea larvae. And once there is a cover of snow on the ground, much of the major source of fleas is eliminated.