

FLEAS: INFORMATION FOR PET OWNERS

What are fleas?

Fleas are small brown insects that infest cats and dogs (and many other species such as rabbits and ferrets). They are just visible to the naked eye and they have strong legs that are adapted for jumping. Most fleas found on dogs and cats in the UK are *Ctenocephalides felis*, the “cat” flea.

The flea life cycle

Fleas spend their adult life on the dog or cat, rarely moving from one host to another and feeding by piercing the host’s skin and sucking blood. After feeding for 1-2 days, female fleas begin to lay eggs. Flea eggs are just visible to the naked eye and appear oval and pearly white.

Flea eggs drop off the animal and into the environment, particularly in areas where the pet lies. After an interval that is temperature dependent, flea larvae hatch from the eggs and grow whilst feeding on debris, including flea faeces, which accumulates in areas such as the carpet and pet’s bedding. When fully mature, the flea larvae pupate and then metamorphose (change) into adult fleas. Pupae are generally found in the base of carpets as flea larvae migrate downwards and away from light. The adult flea does not have to leave the pupal case immediately and can wait for several weeks until suitable environmental conditions are sensed. They respond to vibrations, which signal the availability of a new host, and changes in temperature and humidity. The summer months, or when the central heating is turned on, are all key times when pupae hatch. If a female flea is capable of laying 20-30 eggs a day, and all these eggs develop into pupae which hatch out into new fleas, it is easy to see how flea infestations can become a major household event!

How do fleas affect pets?

- Flea bites are itchy and cat and dog owners often report that their pet is scratching particularly over the pet’s back and tail base.
- Some cats and dogs become allergic to flea bites and become ‘super itchy’. Vets call this problem ‘Flea Allergic Dermatitis’ or FAD. Affected pets are often so distressed by the itch that they scratch or rub themselves raw. Cats with FAD often lick themselves excessively leaving bald patches, or they scratch and leave bumps and scabs on their skin. It is substances in the flea saliva that produce the allergic reaction.
- Heavy infestations of blood sucking fleas can cause anaemia particularly in kittens.

- Fleas can contain the immature 'cyst' stage of a tapeworm called *Dipylidium caninum*. If a cat or dog swallows a flea that harbours a cyst whilst grooming, then the parasite can complete its lifecycle ending up as a mature tapeworm in the intestine of the dog or cat. Owners become aware there is a *Dipylidium* tapeworm problem in their pet when they notice tapeworm segments emerging from their pet's anus. The tapeworm transmission is completed when these segments which contain eggs disintegrate in the environment and are ingested by flea larvae. Pets affected with *Dipylidium* will need to be wormed *and* given flea treatments.

How do fleas affect people?

- Fleas will bite people causing localised itching and soreness. The most common site for bites is around the feet and legs, these being the most accessible parts available to a newly hatched flea as it emerges from a pupa lodged in the carpet.
- Fleas can spread diseases such as 'cat scratch disease' caused by the bacterium *Bartonella henselae*. This bacterium rarely causes problems in cats but people with weak immune systems are at increased risk of getting seriously ill with cat scratch fever. Around 40% of cats will acquire this bacterium at some point in their lives. Fleas spread the infection between cats. The infection is also present in flea dirt. Infected flea droppings on the cat's fur or claws are the source of human infections. Humans can be infected via a cat's scratch, bite or lick. The key to preventing 'cat scratch fever' is to practise excellent flea control and avoid cat scratches or bites.

How can I tell if my pet has fleas?

Dogs and cats can be regularly checked for flea infestations by running a fine toothed 'flea comb' through the animal's coat. This may pick up the adult fleas themselves or 'flea dirt' (flea faeces or droppings). Flea faeces look like black/brown specks of dirt in the coat, they are often comma shaped. Flea dirt placed onto a piece of wet kitchen paper leaves a tell-tale ring of red around it as the blood content in the faeces spreads into the paper.

How do I deal with a flea infestation?

The key to eliminating a flea infestation is to deal with all stages of the flea lifecycle, not just the adult fleas found on a pet. This means that several products may need to be used to ensure successful flea control.

Flea control products can be divided into those designed:

- For application on (or in) the animal
- For application to the environment

Both types aim to control adult fleas or immature stages (such as larvae) or both.

Treatments applied to the animal that are designed to affect immature stages may have an effect either on eggs laid by fleas, or an effect on flea larvae coming into contact with animal dandruff that has fallen in the environment.

Environmental treatments aim to control the immature flea life stages taking place in the environment as well as controlling adult fleas as they emerge from their pupal case.

Flea control products designed for use on or in the animal come as sprays, spot-ons, tablets or injections. Those designed for use in the environment are usually sprays or powders. These products can be used either to prevent flea infestations or to treat established flea problems.

Recent years have seen the launch of many new flea control products which means we are better placed than ever to control fleas and prevent flea infestations. To ensure these products are used wisely and safely, ESCCAP UK advises pet owners to discuss with their vet the most suitable flea prevention or treatment protocols for each household's unique set of circumstances.