



PestAware Advice Sheet

Fretting about fleas?

British Pest Control Association 'Fretting about fleas?' pest awareness advice

BPCA is the trade association for the professional pest management sector. It's our role to help everyone understand the importance of proper pest control, provide pest

prevention advice, and help you find an appropriately trained and trusted pest management company. Our PestAware guides are designed for home and business owners

and are packed with practical advice and tips for getting to grips with British pest species.

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Driving excellence in pest management

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Fretting about fleas?

Pest advice for controlling Fleas

Is your pet fidgeting and scratching an unusual amount? Spotted something jumping around on the carpet? If you find yourself fretting about fleas, you're in the right place.

Discovering there are fleas in your home is distressing and, due to their lifecycle, can be an uphill battle to control.

Whether you're thinking about doing some DIY flea pest control or you're looking to enlist the help of a **professional pest management company**, this guide is for you.



Fleas are related to Diptera (true flies) and were once free-living, flying insects.

Fleas are ectoparasitic insects, meaning they live on the outside of a host animal. They feed on the blood of mammals and birds. It's estimated that there are around 2,500 species of flea in the world.

We get three types of flea in the UK. The most common is the cat flea *Ctenocephalides felis*. Less often, we get dog fleas *Ctenocephalides canis*. While rare, we do occasionally get human flea *Pulex irritans* infestations.

"A flea bite on humans can get infected from prolonged itching. Flea bites have been known to cause skin complaints, and can also exacerbate respiratory illnesses and cause complications"

In this guide

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The dangers: why we control fleas

Risk to people

In the UK at least, fleas do not commonly spread disease.

Although fleas do not pose a direct health risk, flea bites can cause intense irritation and itching to pets and humans alike.

The most problematic aspect of a flea bite on humans is the infection

which can be caused by prolonged itching when left untreated.

Flea bites have been known to cause skin complaints, and can also exacerbate respiratory illnesses and cause complications.

Risk to pets

If your pet has fleas, it will suffer from a great deal of discomfort and could also have an allergic reaction to the flea's saliva.

Lengthy periods of infestation can cause your pet to develop anemia from the loss of blood, although this is rare (see fleas on pets section).



Studies show Black Death, responsible for wiping out 15% of London's population in the 17th century, may not have been spread by rat-borne flea bites but rare human fleas.

Types of flea in the UK

The most common species of flea in the UK is the Cat flea *Ctenocephalides felis*.

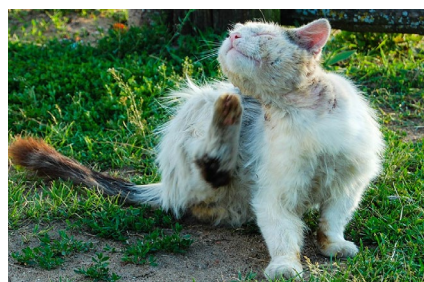
They are an extremely common pest whose primary host is domestic cats, but are known for readily biting humans and dogs too.

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That's right - just because it's called a Cat flea, it doesn't mean the pest won't try and bite people too!

The Dog flea *Ctenocephalides canis* can also use a variety of mammals as a host, but primarily targets dogs and cats. Other types of flea to be aware of are; the Bird flea *Ceratophyllus gallinae* and



Feral cats, foxes and other wild animals are the most common carriers of flea parasites.

Human flea *Pulex irritans*.

The Bird flea only lives for a short time but is an impressive breeder, multiplying in great numbers in habitats such as hen houses.

Finally there are Human fleas, which are now rare in the UK. They are a known carrier of

DID YOU KNOW?

In World War Two, Japan tried to use fleas carrying *Y. pestis* as a biological weapon, dropping them in China.

plague *Yersinia pestis*.

Habitat: how fleas choose a home

Fleas can live on any warm-blooded animal but are often found to be living on humans, domestic animals and rodents.

When not feeding on a host, fleas are mainly active in communal rooms, places where pets sleep and wherever there is most activity.

Fleas and their eggs can be commonly found in soft furnishings which provide plenty of insulation, such as carpets, pet bedding, clothes and upholstered furniture.



If you have an active infestation, you may see fleas jumping in your carpet and furniture.

Around 95% of flea eggs, larvae and pupae live in the environment, not on pets.

As flea eggs can survive dormant for long periods of time, sometimes up to 18 months, it's possible that the infestation was a problem before you even moved into your current home!

If you have pets, they can pick up fleas from other animals or places and give them a ride home.

And although it's less common, so can humans: the fleas will hitch a ride on your clothes, your skin or hair. People usually feel ashamed to

find out they have a flea infestation, as fleas are often associated with dirty environments.

But this is a common misconception - fleas are not picky!

Although a home or business that isn't vacuumed or cleaned is more likely to provide a better environment for fleas to thrive, they

will also infest clean places in their search for a warm-blooded host.

Either way, it is crucial to solve a flea infestation without hesitation as they can quickly get out of control.

Six tell-tale signs that fleas are about

1. Pets constantly scratching, licking or biting themselves may be the first sign
2. Seeing fleas or flea droppings in the coat of your pet (easily spotted in light-coloured animals by brushing back the hair, in dark coated breeds it may be better to comb the animal over a sheet of paper)
3. The identity of the black specks may be confirmed by adding a few drops of water: if they turn red, your pet has fleas!

REMEMBER!
FLEAS WILL
INFEST CLEAN
HOMES TOO

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4. Bites on you or other members of the household, usually around ankles and legs
5. If you have been holding or stroking a pet, you may find bites on your arms
6. And the most obvious sign of a flea infestation? Seeing them! When they aren't busy leeching our AB positive, fleas can often be spotted jumping around on soft furnishings.

Why are fleas more common in summer?

Ideal temperatures for fleas sit at between 21-29°C which is why, in the UK, we find these pests are more common during summer time.

Humidity is also important for fleas: the moisture is needed for the eggs to hatch and for fleas to progress through the life cycle.

Although fleas thrive in warmer climates, extremes of heat will kill fleas, their larva, pupa and eggs.

Below freezing temperatures will kill adult fleas, however those in different stages of the life cycle will simply become dormant.

Broadly speaking, the warmer the weather, the easier it is for fleas to complete their life cycle.

Flea biology and behaviour

Appearance

Appearance differs only very slightly for different types of flea, and often only trained professionals are able to spot the difference under a microscope.

As a group, adult fleas are wingless, flattened laterally (enabling them to move easily through fur) and vary in colour from grey to dark mahogany.

Most species have backwardly directed spines, which are designed to help them grip onto their host.

Adult Dog fleas are on average 2mm in size and brownish-black in colour (appearing to be more reddish-black after a blood meal).

Adult Cat fleas are generally bigger, on average 3mm in size.

Mating and lifespan

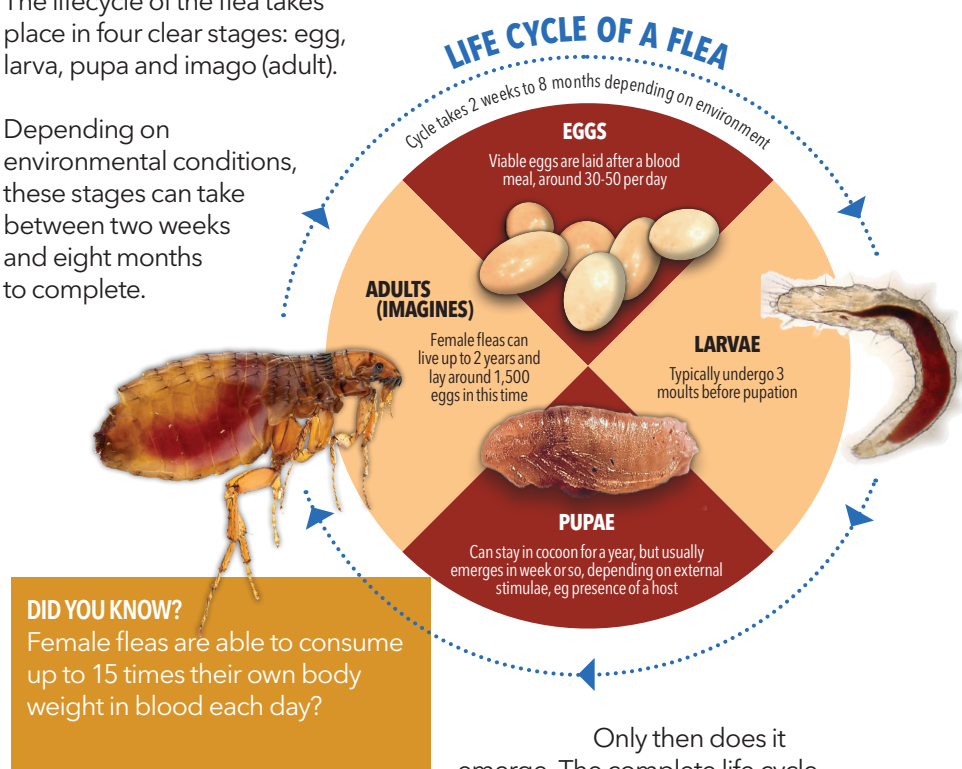
The lifecycle of the flea takes place in four clear stages: egg, larva, pupa and imago (adult).

Depending on environmental conditions, these stages can take between two weeks and eight months to complete.

Critically, they can't lay viable eggs in the absence of the host animal blood meal.

When fully grown the larvae spin well camouflaged, silken cocoons.

Once fully developed the adult waits within the cocoon until it detects the vibrations caused by a person or animal. It can also detect pressure, heat, noise, or carbon dioxide from potential hosts.



Only then does it emerge. The complete life cycle takes about a month in the summer.



Adult Cat flea
(*Ctenocephalides felis*).

Female fleas can live up to two years, during which time they are able to lay around 1500 eggs.

The females must first take a 'blood meal' from an infested animal, after which they lay their eggs.

The eggs drop onto the floor and surrounding furnishings, and after several days will develop into larvae.

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If humans could jump as well as fleas we'd be able to leap over the Shard in London



How do fleas jump so high?

Fleas can leap at least a hundred times their own body length and have been known to hit top distances of around 200 times their length.

A marvellous feat which only appears to be rivalled in the animal kingdom by froghopper insects (yeah, we'd never heard of them either).

Fleas do this by using their hind legs as multi-jointed levers, gripping the ground for traction before crouching down and using their muscles to store energy.

When this energy is released, it acts almost like a bow and arrow, propelling the flea rapidly.

A flea's ability to jump great distances is what enables it to switch hosts, since they are without wings.

Additionally, their legs end in strong claws which help them grip onto their host.

This, combined with their hardened shells, are adaptations which enable them to withstand intense scratching and attempts to remove them.

What do fleas eat?

Adult fleas feed on the blood of humans and animals; females need this in order to produce viable eggs.

The larval stages have mouthparts

for chewing. They feed on detritus, dust and animal protein, such as dead skin and feathers.

They also (brace yourself) eat the droppings of adult fleas, which contain dried blood.

Flea, tick or mite?

Although all belong to the phylum classification Arthropoda, fleas are insects, whereas ticks and mites belong to another group of arthropods: Arachnida.

This puts them in the same class as spiders and scorpions.



Close up of a tick infestation on a dog.

There are many differences between ticks and fleas.

Ticks are much larger and have pear-shaped bodies, which are flat and become engorged as they feed on blood.

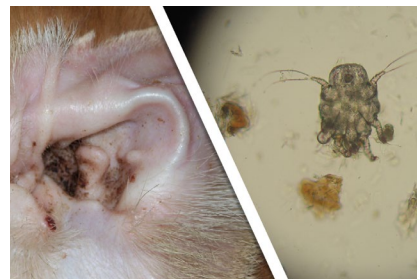
They have eight legs, where fleas only have six.

Crucially, ticks don't generally infest indoor environments.

An exception is the invasive Brown Dog Tick or *Rhipicephalus sanguineus*, which has been **brought into the UK** from Europe on dogs.

It can survive and reproduce inside

a home, unlike native tick species, and is spreading in the UK.



Mite infestation (right) and a mite under the microscope (left).

Mites have a few things in common with fleas, but the key difference in appearance is the number of legs; mites have eight legs and more closely resemble a spider than a flea.

However ear mites can rarely be seen by the naked eye and diagnosis will need to be confirmed by a vet.

Infestations are usually characterised by dirty-looking ears caused by black discharge, redness and inflammation.

Although most mites feed off animals and humans, there are some species which feed on plants.

Fleas on pets

We advise you to **consult your vet** if your pet has any of the following signs:

- Excessive scratching
- Areas of hair loss, bald or sore patches
- Spots or scabs
- Redness and irritation
- Thickened skin in areas (eg around ear edges)
- Tiny dark specks in its fur, or small brown-black insects scurrying about.
- And there are other, more serious consequences of your pet having fleas.

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The animal could suffer from an **allergic reaction** to the flea's saliva, which will manifest in symptoms such as face or body swelling, agitation and feeling hot to the touch.



Lengthy periods of infestation can cause your pet to develop anemia from the loss of blood, which you can identify by checking the paleness of your pet's gums.

Young or frail animals hosting fleas can become weak and even die of blood loss.

Flea larvae can become infected with tapeworm eggs, so if your pet eats an infected flea it can become host to this intestinal parasite.

If your pet has fleas you should also make sure your pet is **treated for worms**.

Fleas can also pass diseases to your pets. For example, **myxomatosis** is a serious disease in rabbits which can be spread by fleas.

Flea treatments for pets

Regular grooming of your pet will not only help you bond and keep your pet looking healthy, but you will be able to check their fur for signs of flea infestation.



Regardless, you should treat your pet for fleas regularly as prevention is better than cure.

Remember: only give your pet treatments that have been recommended for them by a vet.

Products suitable for one species may not be suitable for another. Some dog flea treatments contain an insecticide called **permethrin**, which is safe for dogs but highly toxic to cats.

If you spot fleas on your pet treat as quickly as possible; fleas can give your cat or dog tapeworms and other diseases.

You should also treat your home (see How to get rid of fleas below).

Treating a flea bite

Different people react differently to a bite, both regarding the degree of reaction and time taken to react.

Flea bites are small, red bumps (around 5mm in diameter) that can develop in lines or clusters. They can also sometimes blister.

No matter how much a flea bite itches, you must not scratch it. This could cause an infection, which can lead to fever, nausea and further pain.

You should consult a pharmacist for advice and treatment if you develop an itchy rash or eczema.



The typical symptom of a flea bite is a small red spot about 5mm in diameter.

For itching your pharmacist may recommend crotamiton cream or lotion, hydrocortisone cream or ointment and antihistamine tablets.

For swelling you should apply a cold compress or ice pack to the affected area, or ask your

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pharmacist about treatments such as antihistamine tablets.

If these treatments don't help, you should **visit your GP**. They may prescribe stronger medicines such as steroid tablets.

Allergic reaction to a flea bite

If you're allergic to fleas, your immune system will release an increased amount of histamine.

This may prompt a serious allergic reaction called anaphylaxis.

These are common symptoms of an allergic reaction to flea bites:

- Intense itching
- A rash or hives on various parts of the body
- Shortness of breath or wheezing
- Swelling of the face, hands, mouth, or lips
- Nausea
- Chest pain.
- Anaphylaxis is life threatening if it isn't treated immediately.

Call 999 or go to the hospital right away if you believe you're having a severe allergic reaction to a flea bite.

2. **Walkies** - when returning home, brush out your pet's fur before going inside
3. **Vacuuming** - frequently vacuum the areas your pet is around, especially carpeted areas in and around any furniture that is used by your pet
4. **Washing** - regularly wash your pet's bedding, blankets and other washable items in the hottest water possible
5. **Gardening** - keep your garden tidy by mowing your lawn and raking up any leaves, grass or bush clippings, giving fleas fewer places to hide

How to get rid of fleas

Before treatment

Before an insecticide treatment, clear as much floor space as you can to ensure that treatment is as thorough as possible.

Vacuuming all areas helps to remove any debris, eggs, larvae, pupae and adult fleas.

The vibration of the vacuum cleaner also stimulates adults to hatch from their cocoon stage, making them easier to destroy with insecticides.

And it will also improve the chance of success with insecticide treatment, enabling it to penetrate down to the base of the carpet fibres where fleas live.

DID YOU KNOW?

Fully formed fleas can remain in their cocoon waiting for signs of a host.

Remember to empty the vacuum or remove the vacuum bag, disposing of it in an outside bin.

You will have collected eggs, larvae and adult fleas while vacuuming, and want to reduce the chances of any of those re-infesting your home.

Wash all pet bedding, sofa cushion covers and any other blankets, bedding or clothing which might be affected, in very hot water.

Store away exposed food stuffs and make sure you cover any fish tanks.

Remove any pets from the area, only allowing them back when the treated areas have been fully ventilated.

You will need to leave treated areas for a minimum of three hours, depending on the product used.

DIY flea control

For any flea infestation, we would always recommend contacting a **professional pest management company**.

They are trained in flea control and will have access to a range of professional use insecticides and tools, which are not available to the public.

Knowing how much, where, and when to deploy products is where professionals are able to take control of situations efficiently.

DO NOT APPLY any flea products designed for use on your home to your pet's fur or skin.

However, members of the public can choose to carry out the work themselves, buying amateur-use insecticides from a hardware store or garden centre.

BPCA has a strong warning to

REMEMBER!
FAILED CONTROL
CAN MAKE IT
WORSE

How to prevent fleas

It's difficult to prevent your pets from getting fleas. However, householders can put steps in place to try and avoid a flea infestation:

1. **Pet maintenance** - apply veterinary approved flea products to your pet on a regular basis

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anyone using insecticides – always follow the instructions on the label, and to take all necessary precautions to ensure you do not cause collateral damage or suffer personal injury.

How do professionals get rid of fleas?

Pest technicians get plenty of call-outs to treat properties for fleas - so if you're having issues, you're not alone!

The standard treatment for any infested premises is the application of a residual insecticide, either as a liquid spray or powder. The insecticide is applied to all floor surfaces.

Pest management professionals may also use something called an Insect Growth Regulator (IGR).

Flea eggs and pupae are not

affected by insecticides - this fact is very important to understand after your home has been treated.

This prevents proper completion of the flea life cycle, from larvae to the adult stage. It won't kill adult fleas, so will be used alongside a conventional insecticide.

Once treatment is complete, it is critical you do not wash or vacuum your carpets for a minimum of two weeks - longer if possible. Over the course of the treatment, eggs and pupae will continue to go through the life cycle stages, eventually emerging as adult fleas.

As the insecticide has a residual effect, it will kill the newly-formed fleas.

If you clean your carpet, you'll be in danger of eliminating the residual insecticide which will

lead to a failed treatment.

What if my pest controller can't find evidence of fleas?

Delusional Parasitosis (DP)

is a mental disorder in which individuals incorrectly believe they are infested with parasites, insects or bugs when, in reality, no such infestation is present.

If a professional pest controller carries out an inspection and cannot find evidence of an infestation, then it's possible that DP is the issue. Individuals with DP usually report tactile hallucinations known as formication, a sensation resembling insects crawling on or under the skin.

Sufferers of this condition should see their GP.



BE PROTECTED. PROFESSIONALLY.

How do you know your pest management contractor is fit for the fight?

British Pest Control Association is the trade association for professional pest management companies in the UK.

By choosing an audited BPCA member you can be assured that the services you receive are from a trained and trusted company that meets our strict membership criteria.

Our member companies meet or exceed all legal and 'due diligence' requirements and comply with the most current legislation.

No other trade body gives you this security.

Make sure you stay safe.

Select a BPCA member.

Stay protected. Always look for the logo.



Find a pest controller

A BPCA member company will be able to treat infestations quickly and safely.

They can help minimise pest activity with a range of techniques and have the technical knowledge and experience to apply products in an efficient manner, while minimising risk to the environment and non target species.

You can find a BPCA member, local to you, using our Find a pest controller tool.

**bpca.org.uk/find
01332 294 288**