

# Parasite Control in Pets

## Frequently Asked Questions

**Parasites like fleas, ticks, and worms are a common risk for pets**, and event animals that primarily stay indoors can be affected. Parasites cause pain, discomfort and diseases that can be life threatening if left untreated.



When a pet is carrying parasites, it poses a risk to the people around them. This is because certain parasites can infest and transmit disease to both animals and people.

**Parasite control is one of the cornerstones of veterinary care.** Prevention means pets avoid the pain that can accompany a parasite infestation or infection, while the surrounding household is protected.

**However, the risk of parasites is growing.** Phenomenon such as climate change are allowing parasites to thrive in new areas, so protection is more important than ever.

This FAQ explains the evolving risk of parasites, how they can be controlled, and the measures in place to manage tools like parasiticides.

## Questions



#### **Basics of Pet Parasites**

- What are parasites and how do they affect pets?
- Are parasites common in pets?
- Why does protecting pets against parasites also protect people?
- Is the threat of parasites and vector-borne disease growing or changing?

#### **How are Parasites Controlled?**

- How can pet owners protect their animal against parasites?
- Are year-round prevention strategies necessary for parasites?
- Can parasites be controlled without parasiticides or diagnostics?

#### **Parasiticide Regulations**

- How are parasiticides regulated to ensure products are safe and effective?
- How are any potential environmental effects of parasiticides managed?

## **Answers**



## What are Pet Parasites?

#### What are parasites and how do they affect pets?

Parasites are organisms like fleas, ticks, mites and worms that feed on pets, causing discomfort, pain, and disease. Parasites can live inside or on our pets, put nearby people at risk, and are a threat in nearly every area of the world.

Parasites survive by attacking animals for nourishment. They live in or on the body, benefiting from food and protection, while the animal suffers. Common parasites like ticks and fleas live on an animal's skin or hidden in their fur, while internal parasites like worms live inside the body.

Common symptoms of internal parasites can include appetite loss, diarrhea and extreme fatigue, while external parasites can lead to irritated skin, bites and hair loss. Animals will often itch in areas where external parasites are present, which may worsen skin issues leading to sores and bleeding.

Furthermore, parasites like ticks often serve as 'vectors'. This means they can carry a disease and transmit it to the animal through a bite. Certain parasites can also infect both animals and people, which puts pet owners at risk.

Parasites are present almost everywhere in the world. Waiting to treat parasites rather than preventing an infection or infestation can cause significant pain and suffering for a pet. This is why prevention is typically recommended for pets in at-risk areas.

#### Are parasites common in pets?

Research shows that parasites are a common risk for pets, and even those that primarily stay indoors can be affected.

For instance, groups like the Companion Animal Parasite Council (CAPC) in the US and the European Scientific Counsel for Companion Animal Parasites (ESCCAP) in the EU track the movement of parasites. ESSCAP's maps show a risk of parasites in every EU nation, while the CAPC receives millions of positive parasite diagnoses each year.<sup>1,2</sup>

This work is supported by academic research as well. For instance, a recent study of U.S. dog parks found that in 85% of the locations visited, at least one dog tested positive for intestinal parasites.<sup>3</sup> Furthermore, since parasites thrive by finding new 'host animals', one infected pet puts others at risk.

3

A study found that in 85% of U.S. dog parks visited, at least one dog tested positive for intestinal parasites.

22

#### Why does protecting pets against parasites also protect people?

Many parasites that infest or cause disease in animals also harm people. In fact, over half of the main parasite threats of dogs and cats have a moderate or high zoonotic risk for people.<sup>4</sup> It is why parasite prevention in animals helps protect the people around them.

Some of the parasites that harm pets can also infest or infect people. Fleas can lead to a household infestation that takes at least three months to eliminate. Tick-borne infections in dogs directly correlate with human cases in a region, showing how these parasites can move from animals to people. §

Internal parasites like tapeworms can also infect people through accidental handling of animal feces or through a 'shared environment' with pets like a sandbox or garden.

In 'at-risk' populations like the elderly, children or immunocompromised, an infection with a parasitic disease like toxocariasis can have severe lifelong health consequences, while a toxoplasmosis infection in a pregnant woman can harm the unborn child.

Parasite prevention is therefore important to protecting the surrounding family, community and wider public from these potential 'zoonotic' transfers.

3

Over half of the main parasite threats...have a moderate or high zoonotic risk for people.

99

#### Is the threat of parasites growing or changing?

Yes. Climate change enables parasites and vector-borne disease to thrive in areas that may not have previously been hospitable. More people traveling with pets may also contribute to the spread of certain parasites into new regions.

Leishmaniasis is a dangerous, parasitic disease. When an animal is infected, it can suffer from muscle pain, joint pain, kidney failure and even death. As a 'zoonotic' infection, it can also spread from an animal to people and cause severe illness.

Leishmaniasis is also one of several parasitic diseases that researchers are seeing move further north as climate change makes regions more hospitable. In Europe, Leishmaniasis was once found only in Mediterranean countries, however researchers see it as far north as Germany and predict "the climate in Central Europe is projected to become increasingly more suitable."8

Furthermore, traveling is helping parasites settle into new areas. Studies within the UK have found that canine travel from places like Cyprus, Spain and France is directly connected to the emergence of new tick species.<sup>9</sup>

These results are spurring some veterinary groups to warn pet owners about parasite risks. For instance, the Companion Animal Parasite Council stated in a recent annual 'Pet Parasite Forecast' that the "risk for parasitic diseases continues to increase and expand into areas that have had historically low prevalence." <sup>10</sup>

### **Basics of Parasite Control**

#### How can pet owners protect their animal against parasites?

Experts agree that the best protection against parasites is prevention, which often relies upon diagnostics and parasiticides. These tools can detect, track, prevent, and treat the parasites that put animals at risk. Every animal owner should work with their veterinarian to develop a strategy that best leverages these tools.

Parasiticides are medicines are medicines used to treat and prevent parasites that can harm pets. These come in many forms including pills, collars, spot-on treatments, or an injection.

Some parasiticides may only treat one type of parasite, while others will provide combined protection against many. Many pet owners may refer to these medicines by a brand name or a term like 'flea collar' rather than parasiticide.

Although parasiticides can effectively prevent a parasite infestation, no medicine is 100% effective and owners may not always strictly comply with required dosing schedules. This is where diagnostics play a critical role.

Diagnostics can screen for parasites and ensure a prevention strategy is providing robust protection. For an infection like heartworm or leishmaniosis, once signs of disease are visible, the infection is often life-threatening. Regular diagnostics help catch these infections early when they can be more effectively treated and block the further spread of disease, including to people.

Diagnostics also provide an important tool for parasite tracking. By aggregating testing results across millions

3

Parasiticides work alongside regular diagnostic testing to effectively prevent and treat parasites that can infect an animal.



of animals, researchers monitor parasite populations and help those in at-risk areas implement robust prevention strategies.<sup>13</sup>

Parasiticides work alongside regular diagnostic testing to effectively prevent and treat parasites that can infect an animal.

Together, parasiticides and diagnostics offer a complementary, dual layer of parasite control. Consulting with a veterinarian can help owners ensure their animal has the right mix of coverage.

#### Are year-round prevention strategies necessary for parasites?

Although the specific tools may differ, all pets can benefit from a comprehensive parasite prevention strategy. Approaches that avoid infections in the first place ensure the animal and surrounding people are best protected against parasites and vector-borne disease.

Owners should work with their veterinarian or other professional to determine a tailored approach, but it is

important to recognize that parasites are ever present and no animal, even those living inside, are 'risk free.'

Prevention should be a continuous, life-long consideration for all pets. An assessment by a veterinarian can consider factors such as lifestyle, the local area, travel habits, and parasites prevalence. For instance, in a region where heartworm is present, continuous parasiticide treatment combined with annual diagnostic testing is often recommended to avoid a potential fatal infection <sup>14,15</sup>

In circumstances where an animal does not receive regular treatment, it is important that veterinarians help owners understand the risks this may present, particularly if treatments are missed or not done in a timely manner.

For instance, the European Scientific Counsel for Companion Animal Parasites cautions pet owners that if prevention products are not used for fleas and an infestation sets in, it will take "at least three months to eliminate." <sup>16</sup>

The U.S. Food and Drug administration also warns pet owners that treatment for heartworm disease "is not easy on the dog...can be potentially toxic...and can cause serious complications." It's why they urge owners to undertake year-round prevention and the

American Heartworm Society advocates for owners to 'Think 12' -- meaning 12 months of heartworm prevention and a diagnostic test every 12 months. 18

Useful resources are available to veterinarians and pet owners describing the factors to be considered when planning parasite treatment and prevention such as:

- Companion Animal Parasite Council for the United States,
- ESCCAP for European countries and
- Tropical Council for Companion Animal Parasites (TroCCAP) | TroCCAP for "the tropics" including Asian, African and South American geographies.



If prevention products are not used for fleas and an infestation sets in, it will take at least three months to eliminate.



#### Can parasites be controlled without parasiticides or diagnostics?

Parasite control built on robust diagnostic testing and parasiticide use is a scientifically proven strategy that drastically minimizes the risk of infection.

Across the U.S., Europe, South America and more, there are 'Companion Animal Parasite Councils', which are led by veterinary experts in pet parasites. These Councils offer detailed guidelines that veterinarians may rely upon to control, detect and treat the parasites in their region and all guidelines leverage diagnostics and parasiticides as the core of parasite control. These expert groups recognize and promote these approaches because they are proven tools that protect pets.

For instance, the Companion Animal Parasite Council (CAPC) in the United States recommends annual diagnostic testing for heartworm and tick-transmitted pathogens. CAPC also endorses a strategy of "every pet, all year long", which means "year-round broad-spectrum parasite control with efficacy against heartworm, intestinal parasites, fleas and ticks." For more information on proper parasite control, visit the companion animal council for your region.

## **Parasiticide Regulations**

# How are parasiticides regulated to ensure products are safe and effective?

Parasiticides undergo a regulated review and approval process by national agencies. Any authorized medicine has been assessed by regulators, including for product quality, effectiveness and safety for the animal, the person administering it and the environment.

Before any veterinary medicine can reach the market, regulators require manufacturers to demonstrate three key elements – product quality and consistency; effectiveness; and safety for the animal, the person administering it and the environment. For safety, this involves testing to understand how the product reacts in situations such as handling a product, applying it to an animal, bathing an animal after use, and more.

A 'marketing authorization' will only be granted once a regulatory agency reviews data from a manufacturer and confirms the benefits of the product outweigh any risk. Regulators may also recommend manufacturers take steps to mitigate any remaining risks, such as safety warnings or child-resistant packaging.

Furthermore, once a product is on the market it is monitored through 'pharmacovigilance' systems,

where regulatory authorities track and investigate any reports of any issues, including reports of environmental issues arising from the use of veterinary medicines. Companies monitor their products from the first sale until it is retired from the market to help ensure they remain safe and effective. It is a legal requirement in major markets and all companies comply.

Ensuring that pet owners retain access to a wide range of parasiticides is critical to protecting the health of both pets and the people around them. Authorities must ensure that this access is not jeopardized if regulations are updated or revised. Furthermore, any review of regulations should be a transparent, science-based process that includes a full impact assessment of any potential changes.

# How are any potential environmental effects of parasiticides managed?

Current regulatory guidelines consider veterinary medicines for pets to have a low risk of environmental impact. Additional safeguards are also in place to help address any potential routes to environment, and following product labels is an essential step in this process.

Global guidelines currently state that veterinary medicines for pets pose a low environmental risk because they are generally used as individual treatments in small quantities.<sup>21</sup> Existing safeguards and mitigation practices can also further address any potential routes to the environment for veterinary medicines.

For instance, topical parasiticides are designed to remain on an animal as this is necessary for an animal to stay protected. Testing is often done to confirm products have a limited 'wash off' when applied according to product instructions.

Products may also include steps for owners to take that further reduce any risk, such as a waiting period after application before bathing an animal. Following product labels are an essential step for all pet owners as they provide clear instructions for using a product effectively and safely.

Picking up pet waste is also important for owners since trace amounts of oral parasiticides can be excreted in feces. Removing waste promotes hygiene and helps avoid any trace amounts from entering the environment.

# For more information on pets and parasites visit HealthforAnimals.org or the companion animal parasite council for your region:

USA

Companion Animal Parasite Council



Europe

European Scientific Counsel Companion Animal Parasites (ESCCAP)



Asian, Africa and South America

Tropical Council for Companion Animal Parasites (TroCCAP)



#### References

- 1 ESCCAP Guideline Maps: https://www.esccap.org/guidelines-maps/
- 2 CACP Prevalence Maps: https://capcvet.org/maps
- 3 https://pubmed.ncbi.nlm.nih.gov/32487211/
- 4 https://www.sciencedirect.com/science/article/pii/S2352771424000053
- $5 \\ https://www.esccap.org/uploads/docs/oqsb8b7j\_0687\_ESCCAP\_General\_Recommendations\_update\_v5.pdf \\$
- 6 https://parasitesandvectors.biomedcentral.com/articles/10.1186/s13071-020-04514-3
- 7 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6378404/
- 8 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9334478/
- 9 https://pubmed.ncbi.nlm.nih.gov/29217768/
- 10 https://capcvet.org/about-capc/news-events/companion-animal-parasite-council-releases-annual-2021-pet-parasite-forecast/
- 11 https://www.aaha.org/aaha-guidelines/life-stage-canine-2019/parasite-control/
- 12 European Scientific Council Companion Animal Parasites, World Control Guidelines:

https://www.esccap.org/uploads/docs/uoayqf2a\_0461\_ESCCAP\_MG1\_\_English\_20210518.pdf

- This work is done in the USA by the Companion Animal Parasite Council: https://capcvet.org/ and in Europe by the European Scientific Counsel for Companion Animal Parasites (ESCCAP): https://www.esccap.org/
- 14 https://capcvet.org/guidelines/heartworm/
- 15 https://www.aaha.org/aaha-guidelines/life-stage-canine-2019/parasite-control/
- 16 https://www.esccap.org/uploads/docs/t58tbu33\_0687\_ESCCAP\_General\_Recommendations\_update\_v5.pdf
- $17 \\ https://www.fda.gov/animal-veterinary/animal-health-literacy/keep-worms-out-your-pets-heart-facts-about-heartworm-disease$
- 18 https://d3ft8sckhnqim2.cloudfront.net/images/Think\_12\_PDFs/Think12Dog\_Dos\_and\_Donts101316.pdf?1476362471
- $19 \\ \hspace{0.5cm} \textbf{US: https://capcvet.org/guidelines/general-guidelines/} \ EU: \\ \hspace{0.5cm} \textbf{https://www.esccap.org/guidelines/} \ Tropics: \\ \hspace{0.5cm} \textbf{https://www.troccap.com/canine-guidelines/} \ Tropics: \\$
- 20 https://capcvet.org/guidelines/general-guidelines/
- $21 \\ https://www.vichsec.org/en/guidelines/pharmaceuticals/pharma-safety/environmental-safety.html$