



Animal
Medicines
Australia



Parasite control in pets:

Frequently asked questions

Parasites like fleas, ticks, mites and worms are a lifelong health risk for pets. They cause pain, discomfort, and illness that can be life-threatening for a pet if left untreated. In addition, some pet parasites, and the diseases they carry can spread to people, putting our health and well-being in jeopardy.

Parasite control is one of the cornerstones of good veterinary care and is essential for all pets. Tools like diagnostic testing and parasiticide use offer multi-level protection that can effectively prevent infestations and offer early treatment for those that occur. This safeguards our animals and protects the people living with them against any illness these parasites could also share with people.

However, the risk of parasites is changing. The changing climate and associated extreme weather events are allowing parasites to thrive for longer periods and in new areas, so protection is more important than ever.

This FAQ can help people understand the evolving risk of parasites, how they can be controlled, and the measures in place to manage tools like pet parasiticides. ►



Questions:

Introduction to pet parasites ►

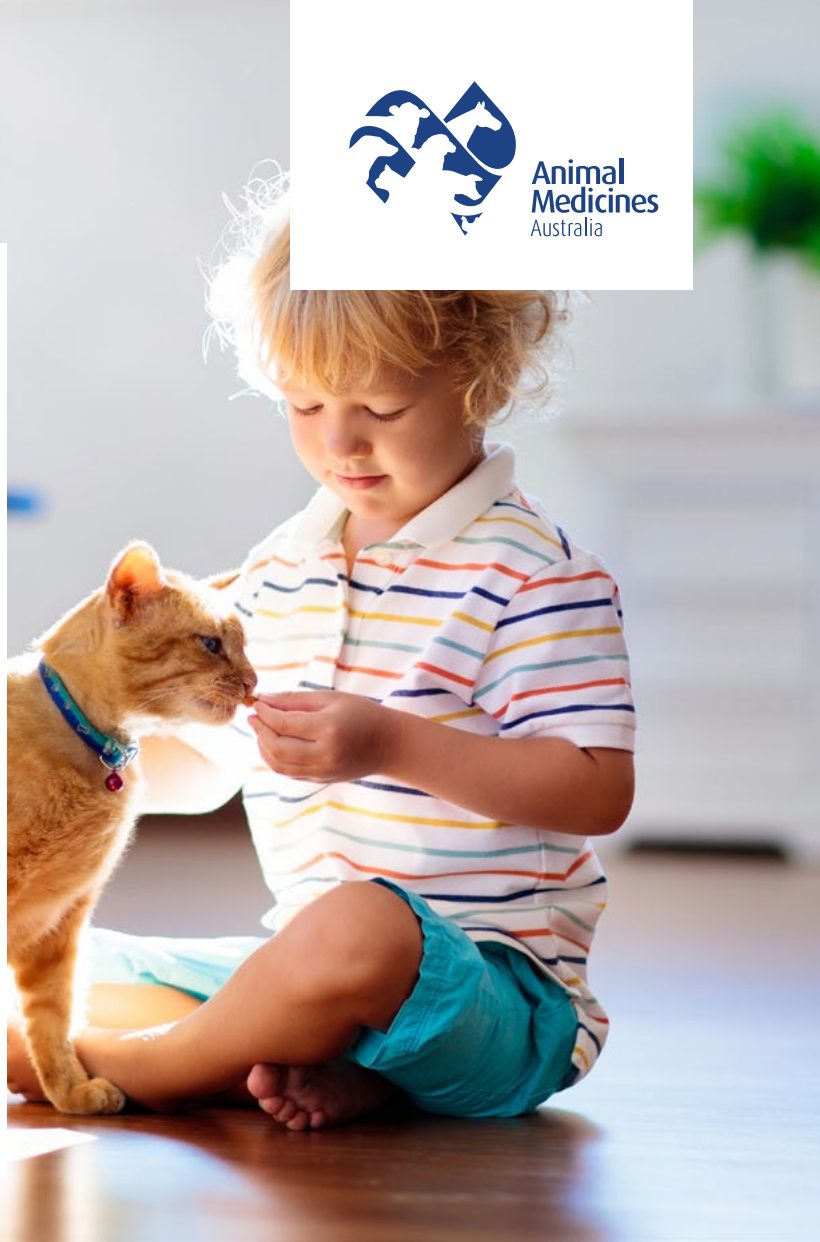
- What are parasites and how do they affect our pets?
- Why does protecting pets against parasites also protect people?
- Is the threat of parasites and vector-borne disease growing or changing?

How are parasites controlled? ►

- How can pet owners protect their animal against parasites?
- Are year-round treatment strategies necessary for parasites?

Environmental protection ►

- How are parasiticides regulated and monitored in Australia to avoid any environmental risk?
- What measures are put in place to reduce the risk of parasiticides entering the environment?



Answers:

► Introduction to pet parasites

What are parasites and how do they affect our pets?

Internal parasites can lead to malnutrition, gut disease, heart and lung disease and other serious illnesses.

For external parasites, common symptoms include skin irritation, allergies, bites, anaemia, and even toxicity. Animals will often itch in areas where external parasites are present, which may worsen skin issues leading to sores and other wounds and infections.

Ticks are particularly dangerous and may serve as 'vectors' of disease or inject fatal toxins into the pet. This means they can carry a disease or produce a toxin and transmit it to the animal through a bite.

Certain parasites can also spread illness from pets to people, or even infect people themselves, which puts pet owners at risk. Parasites are present almost everywhere in the world.

Treatment of parasite infestation after the event is possible; however, it is generally agreed that prevention is the safest, most effective protection.

Why does protecting pets against parasites also protect people?

Many parasites that infest or cause disease in animals also harm people.

In fact, one out of every four zoonotic illnesses (i.e. diseases that are passed from animals to humans) can be linked to parasites that affect our pets.¹ This is why parasite prevention in animals provides protection for the people around them.

A recent peer-reviewed study found "some of the most important zoonotic infectious diseases are associated with parasites transmitted from companion animals to man."²

External pet parasites like fleas can also cause bites and irritation in humans, while ticks can spread 'vector-borne diseases' from animals to people. Internal parasites like roundworms, hookworms or tapeworms can also infect people through ►

accidental or improper handling of animal waste or contact with environments contaminated with animal parasite eggs and larvae. In vulnerable populations such as the elderly, children, or immunocompromised, an infection with disease like Toxocariasis, which is caused by parasites, can be dangerous and potentially life-threatening.



Parasite detection and prevention in animals is therefore important to protect the pet-owning family, community and wider public from these potential 'zoonotic' diseases. When properly implemented, a parasite prevention strategy reduces the risk of parasites and vector-borne disease for that animal, which also protects the people around it.

Is the threat of parasites and vector-borne disease growing or changing?

Climate change enables parasites and their associated vector-borne diseases to thrive in areas that may not have previously been hospitable.³

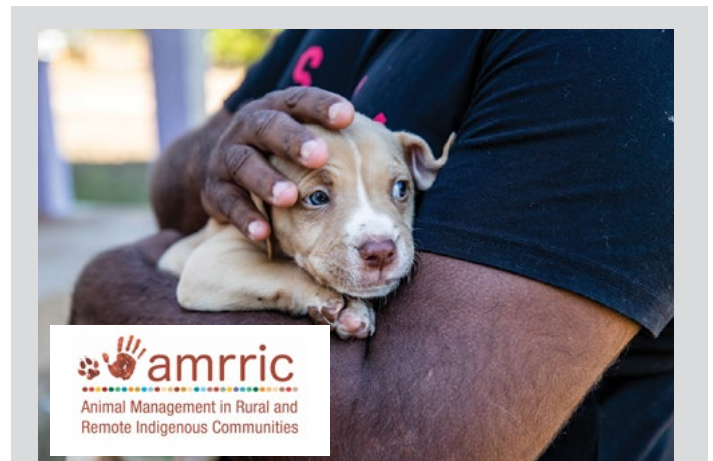
More people traveling with pets may also contribute to the spread of certain parasites into new regions.

Tick paralysis is a debilitating and often deadly parasitic disease caused by the paralysis tick, *Ixodes Holocyclus*. Common symptoms in pets include loss of coordination, weakness or paralysis in the back legs, changes in voice, difficulty breathing, vomiting, regurgitation and drooling. If left untreated, affected animals can die.⁴

The paralysis tick is found along the east coast of Australia. The Australian Veterinary Association recommends that pets living in high-risk areas should have year-round tick prevention, under guidance from veterinarians, to avoid tick paralysis.

Globally, ticks are among several parasites that researchers are seeing move into new geographical areas as climate change makes them more hospitable. Modelling suggests that, by 2050, the areas in Australia that have suitable climatic conditions for *Ixodes Holocyclus* will change – with some areas becoming more suitable and others less suitable.⁵

Traveling is also helping parasites settle into new areas. Researchers have found that a number of geographic areas in Australia are currently suitable for establishment of *Ixodes Holocyclus* where it has not previously been detected, including areas in Western Australia and Tasmania.⁵ This is why surveillance and control are crucial for disease prevention. Robust parasiticide controls also strengthen animal defences against the emergence of new parasites in their region. ▶



In 2020, a deadly tick-borne disease was detected for the first time in dogs in northern and central Australia.

Ehrlichiosis is caused by the bacterium, *Ehrlichia canis*, and is spread between dogs by the bite of the brown dog tick. The disease has now killed up to 30% of dogs in some rural and remote communities in northern Australia.

While killing ticks is important in stopping the spread of ehrlichiosis, products that repel brown dog ticks and stop them from biting are also critical to protecting individual dogs from ehrlichiosis.

Recognising the inseparable link between the health and wellbeing of companion animals and that of their owners and their communities, AMRRIC (Animal Management in Remote and Rural Indigenous Communities) provides educational resources to raise awareness of ehrlichiosis and its prevention and ensure the availability of preventative products in remote and rural Indigenous communities.

► *How are parasites controlled?*

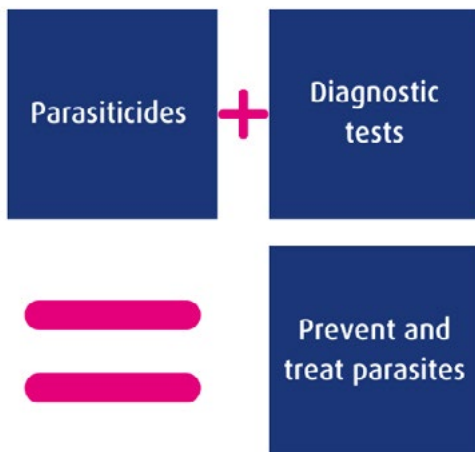
How can pet owners protect their animal against parasites?

Veterinarians agree that the best protection against parasites is prevention, and the cornerstone tools are diagnostics and parasiticides.⁶ 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.

Diagnostics can accurately detect internal parasite infections and vector-borne diseases. For acute infections where symptoms are clear, diagnostics can quickly confirm an infection and help a veterinarian select the right treatment.

For an infection like heartworm, once signs of disease are visible the infection is often life-threatening.⁷ Regular diagnostics help catch these infections early when they can be more effectively treated and block further spread.

Diagnostics also provide an important tool for parasite tracking. By aggregating testing results across millions of animals, researchers monitor parasite populations and help those in emerging at-risk areas implement robust prevention strategies.⁸



Parasiticides work alongside regular diagnostic testing to effectively prevent and treat parasites that can infect an animal. These medicines come in a wide variety of options including oral tablets, topical spot-ons, collars, etc. and rely on varying ‘modes of action.’ Some may provide protection directly on the skin of the animal, stopping external parasites from taking hold in the fur and biting. Others may provide protection through the blood of the animal, so that any

ingested blood kills the parasite before it does any damage and reproduces.

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

Are year-round treatment 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 to determine a tailored approach, but it is important to recognise that parasites are ever present and no animal, even those living inside, is ‘risk free.’

Parasite 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 parasite prevalence. For instance, traveling to or from regions where heartworm is highly prevalent may require regular diagnostic monitoring and parasiticide treatment to avoid a potentially fatal infection.⁹

The Australian Veterinary Association warns pet owners that heartworm, spread by mosquitoes, can be fatal and that treatment for heartworm disease “is costly and is not always successful.”¹¹ It’s why they urge owners to undertake year-round prevention.

In circumstances where an animal does not receive continual 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.”¹⁰ ►



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► *Environmental protection*

How are parasiticides regulated and monitored in Australia to avoid any environmental risk?

All registered veterinary medicines, including parasiticides, undergo a scientific, risk-based assessment by Australia's regulatory agency, the Australian Pesticides and Veterinary Medicines Authority (APVMA), before they can be sold and used in Australia.

This assessment requires that manufacturers demonstrate the product is safe for the animal, the person administering it and that it does not adversely impact the environment. Product labels also provide instructions on how to use a medicine correctly and help avoid potential environmental risk.

The APVMA follows a scientific, risk-based process to determine whether a product may pose a risk to the environment and whether that risk can be mitigated. This process involves three steps:¹²

1. A hazard assessment determines whether the product has the potential to cause harm.
2. An exposure assessment determines the likely extent of exposure of the product.
3. The risk characterisation uses the information from steps 1 and 2 to determine the overall level of risk of the product causing harm and whether these risks can be appropriately managed, through methods such as including instructions for disposal of unused product and its packaging.

Once a product is on the market it is monitored through 'pharmacovigilance' systems, where both national and global regulatory authorities track and investigate any reports of any issues, including reports of environmental issues arising from the use of veterinary medicines. Companies also monitor their products to help ensure they remain safe and effective. ►

More information on how environmental considerations play a role in development, authorisation, manufacturing, use and disposal of medicines can be found in the HealthforAnimals publication – [Animal Medicines and the Environment: Principles and Practices](#).



What measures are put in place to reduce the risk of parasiticides entering the environment?

Products are designed with environmental safety as a consideration, which is why environmental risk assessments are performed by product developers on all parasiticides and evaluated by the APVMA.

Furthermore, users receive clear instructions through product labels that explain how to apply a parasiticide and precautions, if any, to avoid entry into the environment.

Products used on the skin are designed to remain on a pet for long-lasting protection and this will be verified by data provided to the APVMA. Owners are also provided instructions such as not allowing an animal to swim shortly after application.

For internal products such as oral parasiticides, pets may excrete trace amounts in their waste. The exact amount varies by product, but it is generally quite low and environmental impacts are unlikely.

Following product label instructions about how to use the product, as well as disposing of any unused product or packaging, is the best way to not only ensure pets receive effective protection against parasites, but to ensure no undue risk is created for the environment.

For more information on pets and parasites:

- **Australian Veterinary Association** | [VetVoice](#)
- **Tropical Council for Companion Animal Parasites** | [TroCCAP](#)

References

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