



# Tick Paralysis in Dogs

## What is tick paralysis?

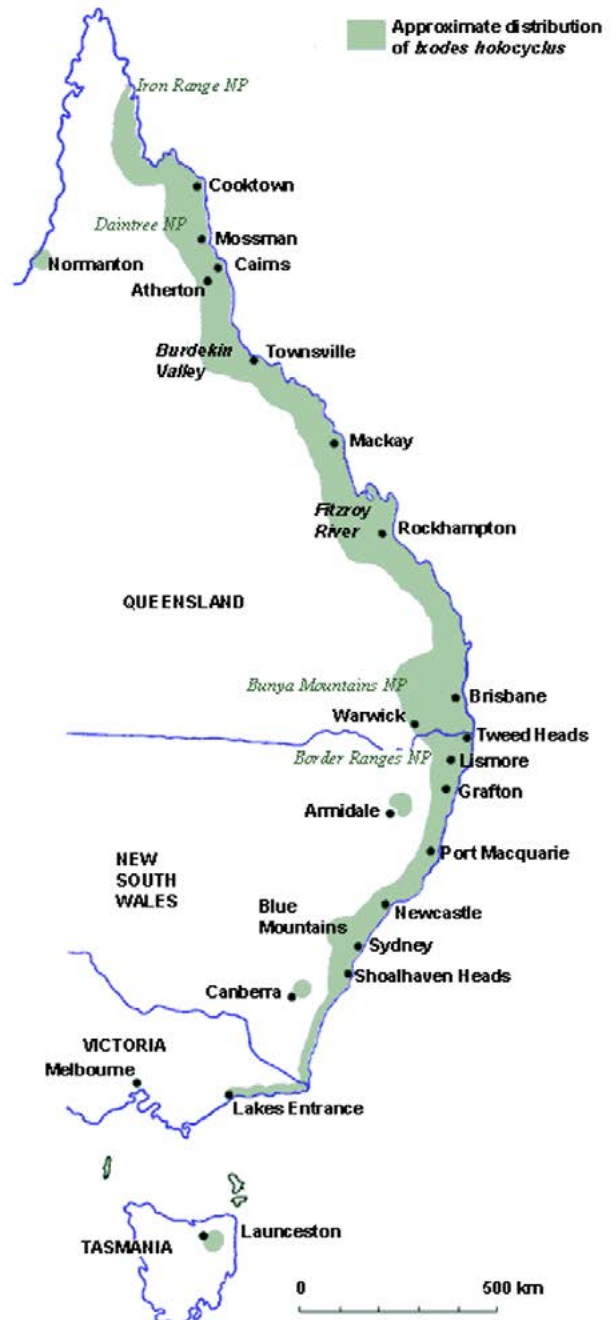
Tick paralysis is a potentially deadly condition caused by the Paralysis Tick (*Ixodes holocyclus*) that can affect dogs.



## When and where can ticks be found?

The Paralysis Tick can be found in bushy coastal areas along the eastern seaboard of Australia, from north Queensland to eastern Victoria. Many people assume that ticks are only present during summer months, but the high risk period can span from spring to autumn, with cases regularly reported in winter.

Paralysis ticks will jump onto dogs and then attach by burrowing their mouth-parts into the skin. Although they prefer to attach to the front half of the dog, they can attach anywhere, even in the ears, on the lips, or around the anus. Dogs can have multiple ticks attached at once. Occasionally, numerous tiny juvenile ticks can attach simultaneously causing an intense maddening itch.



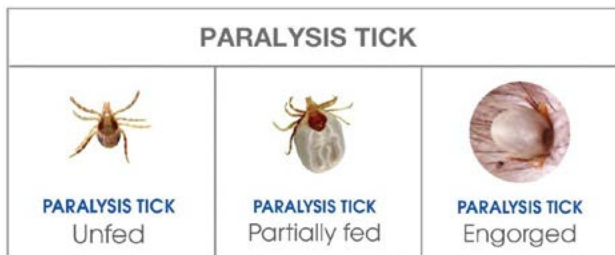
Distribution map of the Paralysis Tick of Australia (*Ixodes holocyclus*)  
Source: Roberts FHS Australia Ticks. Yeerongpilly QLD.



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## What do paralysis ticks look like?

Paralysis Ticks can be identified by their grey body and legs close to the head. Their legs are the feature which best distinguishes them from other ticks that occur in the same regions.



- **Size:** Adult ticks are approximately 3-6mm in length, but can be bigger when fully engorged.
- **Colour:** They have a grey body with legs close to the head.
- **Legs:** The legs are the feature that best distinguishes them from other ticks in the same regions. Paralysis ticks have one pair of brown legs closest to their head, then two pairs of white legs, and then one pair of brown legs closest to the body.
- **Shape:** They have an oval or seed-shaped body that is flat when empty, or rounded when engorged.
- **Mouthparts:** They possess a long mouthpiece or 'snout' with barbs along it, helping them to embed within their host. When removing ticks, it is important to make sure this part is also extracted.

## How do I prevent tick paralysis?

If your dog lives in, or visits areas where paralysis ticks could be present, you should regularly search them thoroughly, at least once a day. Clipping your dog's coat short, especially during the tick season, makes performing tick searches much easier.

Using commercially available parasiticide products is highly recommended to help prevent a potentially deadly condition. Since the release of modern parasite treatment products (containing the isoxazoline class of drug), there does appear to be a reduction in the number of cases of tick paralysis seen in veterinary hospitals. This is a positive indication that the products are highly effective. However it is important to note that no product is 100%

effective at preventing ticks from attaching and causing paralysis, so regular searches are vital in order to avoid tick paralysis. Products that can help include chewables, spot-on products, baths, and rinses. It is vital to use tick prevention products exactly as directed. Consult with your local veterinarian about the best tick product or program for your pet.

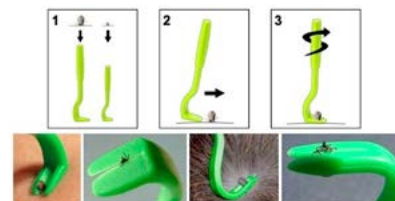
## How do I perform a tick search?

To perform a tick search, work your fingers through your dog's coat down to the skin and then systematically massage your fingers over the entire coat. You should concentrate on the dog's front half as this is where ticks are more likely to attach. Once firmly attached, ticks feel like a hard, smooth, round irregularity on the surface of the skin. Make sure you check the edge of the lips, in skin folds, between the toes and in the ears.

If you think that you have found a tick, part the fur to have a closer look at it. Nipples, warts and other bumps on the skin are often mistaken for ticks. Sometimes the tick has already become detached by the time that you are performing a search, in which case you may only find a crater where a tick has been attached.

## What do I do if I find a tick on my dog?

If you find a tick, you should use a tick remover to detach it from the skin. If a tick remover is not available, tweezers are also suitable. Attempt to remove the tick by its head, without squeezing the body. Great care must be taken not to separate the head from the body. If the tick is too difficult to remove, take your dog to a veterinarian immediately. Do not attempt to burn the tick, apply tick treatments, alcohol, mineral oil or petroleum jelly to the tick while it is still attached. Closely monitor your dog, even if it is well. It is possible for your dog to start showing signs of tick paralysis after the tick is removed. Once signs of paralysis appear, the animal can deteriorate further even after the tick has been removed.





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## How long does a tick have to be attached before it causes a problem?

As a rough guide, for a tick to cause a problem for a dog, it either has to be quite large (greater than 4 mm long) or be attached for at least 4 days. However there can be marked variation in the potency of the tick and also the individual dog's susceptibility to tick paralysis, which may also vary from season to season.

## Why are paralysis ticks so dangerous?

After attaching, the tick feeds on the host's blood, injecting small amounts of saliva into the dog. The tick's saliva contains a toxin that disrupts the connection between the nerves and the muscles of the body, causing weakness and paralysis. Not only does this affect muscles that help the animal stand and walk, but it can also affect muscles used for breathing and swallowing, leading to serious and life threatening conditions.

If ticks are attached near the eyes they can paralyse the eyelids, preventing the animal from blinking, which can cause eyes to dry out and become damaged. The tick toxin can also cause paralysis of the oesophagus and affected dogs may choke, retch, or regurgitate their food, water or just frothy fluid. One serious complication of this is aspiration of fluid or food into the lungs resulting in pneumonia. Tick paralysis also often causes difficulty breathing. If the paralysis becomes too advanced and the muscles involved with breathing become too weak, the dog may not be able to breath sufficiently on its own. Tick paralysis is progressive and potentially fatal and mechanical ventilation in an emergency veterinary hospital may be required.

## What are common signs of tick paralysis?

- Incoordination
- Weakness or wobbliness starting in the hindlegs
- Collapse
- Vomiting or retching
- Change in sound of the bark
- Difficulty breathing

If your dog is showing any signs of tick paralysis, it is considered an emergency, seek veterinary treatment immediately. Do not wait for signs to worsen and do not give food or water before seeking help. This is especially important for animals that are already having trouble swallowing. In severe cases, veterinary emergency care with ventilators, and specialist critical care is needed.

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