

Tick Paralysis

There are three main species of tick in our area. Only one of these (*Ixodes holocyclus* or Paralysis Tick) holds any major health risks for our pets, but they can be fatal so effective prevention and early intervention is vital. They occur year round but their numbers reach a peak from early spring to late summer (the so-called “tick season”) when it is warm and wet. A severe paralysis tick infestation can lead to respiratory failure and death.

The female Paralysis Tick is the most dangerous. They lay up to 3,000 eggs and, once hatched, the offspring attach themselves to vegetation with their first host in mind. After they find their first host – either a possum, bandicoot or koala – the ticks drop off again and wait for another host. It’s at this stage that a cat or dog, even a human is usually the choice. They will engorge themselves on blood over 100 times their body weight and can grow to the size of your little finger nail.



Tick paralysis, or tick-bite paralysis, is caused by a potent toxin that is released through the saliva of certain species of female tick and which is injected into the blood of the animal. The toxin directly affects the nervous system, leading to a group of nervous symptoms in the affected animal.

The toxins released by ticks cause lower motor *neuron* paralysis, which is defined as a loss of voluntary movement and which is caused by a disease of the nerves that connect the spinal cord and muscles. With lower motor neuron paralysis the muscles stay in an apparent state of relaxation.

Removal of a Paralysis Tick

There are a few important tips to remember when removing ticks from a pet.

When removing a tick it is important not to disturb the body of the tick and to try and grab the tick by its head, at the point of insertion in the skin. You can use your finger nails, tweezers or specifically designed tick removers. It is important to NOT put alcohol, metho, turps etc on the tick first, as this will cause the tick to release extra toxin into your pet!



Symptoms of Tick Paralysis

Clinical signs usually develop within 3-4 days after tick attachment but, in some very rare instances, signs may not be seen for up to a week or two after attachment.

- Vomiting and/or gagging or refusing food.
- A slight wobbliness of the hindquarters which worsens to paralysis and inability to stand.



- A change in the sound of bark or miaow;
- Vomiting and/or gagging or refusing food
- Difficulty breathing (slow and laboured, often with a grunting noise on expiration).

If your pet is showing **ANY** of these signs it is **IMPORTANT** that it is treated appropriately **AS SOON AS POSSIBLE** as untreated animals may die.

Sometimes you may find a tick or ticks on your pet and it is not showing any clinical signs. In such cases you should remove all the ticks, keep your pet quiet and closely watch him/her for the next 24-36 hours as signs may still develop despite the removal of the ticks. If this happens, treatment is necessary.

Treatment for Tick Paralysis

In all cases of tick poisoning the following procedures will be followed:

- Administration of a sedative (cats especially can become very agitated and stressed with a tick);
- Removal of all ticks and repeated searches;
- Pre-medication and administration of anti-tick serum. It should be noted that adverse reactions can occur to the serum;
- Cage rest and close monitoring,
- Monitoring of bladder function. Manual expression of the bladder is often required until normal function returns.
In some cases additional procedures are required, such as:
- Supportive treatment, such as fluids, oxygen, etc. (depending on the severity) may be necessary
- Possible need for artificial ventilation.
- Further diagnostic procedures including blood pressure, blood tests and chest radiographs.
- Other procedures may be necessary in severe cases.

In general your animal will be in hospital for at least 2-3 days. Your pet will be graded on admission for respiration and gait. You will be informed of the changes in the grading during your pet's hospitalisation. Prior to discharge your pet will either be sprayed with Frontline or given a tick bath and rinse.

Some breeds of dogs seem to be particularly sensitive to the effects of the neurotoxin. These include Collies, Border Collies, Irish Setters and German Shepherds. In such animals clinical signs can be more severe and recovery often slower.

Tick Paralysis after Care

It is important to keep your pet **QUIET** and **COOL** for 2 weeks after tick poisoning because of the possibility of delayed cardiotoxic effects. In addition small frequent meals and fluids are preferable to one large meal a day. Another common side effect of tick poisoning is inhibition of

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a dog's ability to urinate. Although this is unusual you should check that your pet is urinating freely. This means observing a stream of urine not just "that he's cocking his leg"! It is important to realise that your pet is still susceptible to poisoning from any future ticks. The antiserum given at the time of treatment does not have any lasting protective effects and so preventative measures should be undertaken.

Can I prevent Tick Paralysis in my pet?

Yes, you can prevent Tick Paralysis. The goal is to prevent the tick attaching in the first place but to then try and ensure they are found and removed promptly if they do get attached. We recommend;

- Thorough daily searching all over pets body
- Regular coat grooming and/or clipping to make searching easier
- Avoiding low-lying scrubby wet areas (where native wildlife deposit their ticks)
- The use of effective tick preventatives like Nexgard or Nexgard Spectra, Serestro Collars, Frontline™ or Advantix™

If you have any questions about Tick Paralysis contact the clinic immediately.

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