

## Fact sheet: Ticks and tick bites in Australia

### What are ticks?

- Ticks are blood-feeding parasites. With more than 800 species of ticks around the world, 70 have been found in Australia and 16 of these have been reported to feed on humans<sup>1</sup>.
- Ticks are important vectors transferring microorganisms that cause disease in animals and humans.
- Globally, ticks transmit *Borrelia* (the bacteria which cause borreliosis - also known as Lyme disease/Lyme-like disease, Lyme borreliosis or relapsing fever), *Ehrlichia*, *Babesia*, *Rickettsia*, *Bartonella* and other infections.
- There are two major groups of ticks: soft ticks and, most importantly, hard ticks which includes the Paralysis Tick (also known as the grass tick, bush tick and seed tick). Both types of ticks can bite people.
- Paralysis Ticks have a distinct seasonality – reaching full maturity during the warmer spring and early summer months<sup>1</sup>.
- Ticks are most active during periods of high humidity, especially after rain.
- Related insects such as biting midges breed in wet soils and sandy beach areas<sup>2</sup>.

### Tick-borne disease in Australia

- Over 95% of tick bites in Eastern Australia and most tick-borne diseases are due to the Paralysis Tick<sup>1</sup>.



*The main distribution of 3 common ticks in Australia*

### Preventing tick bites

Tick bites are best prevented by identifying and avoiding tick endemic areas.

If you are entering or live in a tick endemic environment, take appropriate precautions (particularly in the warmer months) by:

- Wearing clothing that provides coverage such as a long sleeved shirt and pants tucked into socks
- Wearing light coloured clothing so you can see small ticks
- Treating clothing and boots with permethrin
- Applying insect repellent that contains picaridin - at least 20% diethyl-meta-toluamide (DEET).
  - Reapply every few hours, or as directed
- Checking your body, children and pets thoroughly when you return from outdoor activity – this includes behind the ears, in the hair and back of the head
- Once home, placing your clothing in the dryer on high heat for 30 minutes to kill any ticks
- Cutting grass and trimming shrubs and small trees around your home regularly
- Growing insect-repelling plants in your garden like chrysanthemums, citronella, lavender or garlic

For more information visit: <http://www.kmf.org.au/tick-bite-prevention>

## Removing ticks

There are 2 methods of tick bite removal.

1. **Chemical removal**
2. **Physical removal**

The type of method used can depend on how many ticks are attached and whether it is an adult or a child who has been bitten.

### **Chemical removal:**

Chemical removal is most commonly used for removing multiple larval/nymph (adolescent) ticks as they are smaller than an adult tick and more difficult to handle with tweezers.

Chemical removal is not suitable for children. Permethrin (5%) containing creams cannot be used on infants less than 2 months and ether containing wart removal products cannot be used on children less than 4 years.

Use a paralysing topical cream with Permethrin (5%), such as Lyclear. Apply on a tick or on multiple ticks and they will be paralysed and drop off after thirty minutes to an hour.

Ether containing aerosol sprays can be used to freeze single ticks. Apply taking care to minimize skin contact.

If you have any allergies avoid using chemicals

### **Physical removal:**

Ticks screw into the skin in a clockwise fashion. They can be removed using a fine tipped forceps such as *TickEase*. Pull upwards in a slow anticlockwise (unscrewing) motion, applying steady pressure. Avoid jerking or twisting the tick.

The tips of the forceps should be as low and close to the skin as possible to prevent squeezing the tick's insides which can contain harmful bacteria.

## About the Karl McManus Foundation:

The Karl McManus Foundation is a leading Australian charity and organisation dedicated to education and evidence-based research for Australian tick-borne diseases. The organisation acts as an advocate for improved testing, treatment and education of tick-borne diseases in Australia.

The Karl McManus Foundation relies upon fundraising and generous donations from the public to support its research programs and education activities.

The Karl McManus Foundation is currently calling for people who have been bitten by a tick and who have not travelled outside Australia to donate blood and collect ticks as part of an ongoing research project into tick-borne disease. For more detail please contact [info@kmf.org.au](mailto:info@kmf.org.au).

For more information visit: [www.kmf.org.au](http://www.kmf.org.au)

### **References:**

1. Australian Department of Health: Tick bite prevention. Accessed 23 November 2016. <http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-tick-bite-prevention.htm>
2. Byron Shire Council. Accessed 23 November 2016. <http://www.byron.nsw.gov.au/protect-yourself-from-biting-midges-sand-flies>