

## What are ticks?

Ticks are parasites that feed on animal and human blood.

There are four distinct stages of a tick's development from eggs to larvae to nymph to adults. Between each stage ticks must have a bloodmeal. The whole cycle usually takes about a year from egg to adult.

It is easy to confuse the different stages of a tick's development for different species of tick.

## Where are ticks found?

There are many species of tick in Australia. The most common tick in New South Wales is the paralysis tick *Ixodes Holocyclus*, which is found along the State's eastern coastal strip and inland for about 30 kilometres. As the majority of the population also lives along the coast, encounters with this tick can be frequent.

Ticks, like many insects, occur in humid, moist bushy areas. Eggs are typically laid in leaf matter or mulch. Ticks are not very mobile but rely on passing animals to both feed on and transport them. Ticks may appear to drop onto clothing after brushing past bushes or trees or may fall from overhanging branches, especially around clothes lines.

## How can ticks affect humans?

Ticks inject a toxin that may cause local irritation or a mild allergic reaction, however most tick bites cause little or no symptoms. In some cases ticks can pose a serious threat to human health. Tick borne diseases, tick paralysis and severe allergic reactions, while uncommon, can pose a serious health threat.

Tick-borne diseases occurring in Australia are Australian Tick Typhus or 'Spotted Fever' (along the coastal strip of eastern Australia from North Queensland to Victoria) and 'Flinders Island Spotted Fever' (in Victoria, Tasmania and Flinders Island in Bass Strait).

Early symptoms of tick paralysis can include rashes, headache, fever, flu like symptoms, tenderness of lymph nodes, unsteady gait, intolerance to bright light, increased weakness of the limbs and partial facial

paralysis. At the site of the bite there may be a black scab or eschar. As the tick engorges on more human blood the tick paralysis symptoms may intensify including after the tick has been removed.

Clinical diagnosis is confirmed by specific blood tests. Tick typhus is treatable with antibiotics, although fatalities have been known to occur.

## Ticks and Lyme Disease

Lyme Disease is caused by a bacterium and has become the most common tick borne disease in the world. It has been reported from every continent, though there is no conclusive evidence that it is found in Australia.

Lyme Disease causes a range of non-specific symptoms including fever, fatigue, headaches, myalgia, arthralgia, muscle and joint pain and sore and swollen lymph glands. These symptoms can occur within days, weeks or months of being bitten. A characteristic skin lesion, erythema migrans, may also appear within 3 to 30 days at the site of the tick bite. Lyme Disease can be treated with antibiotics.

## Allergic reactions to ticks

Mild allergic reactions and itching can be treated with antihistamine creams and lotions. In some susceptible people tick bite may cause a severe allergic reaction or anaphylactic shock, which can be life threatening. If swelling of the face and throat causes breathing difficulties, seek urgent medical attention.

## To remove a tick

Remove a tick as soon as possible after locating it. Use fine pointed tweezers and grasp the tick as close to the skin as possible. Gently pull the tick straight out with steady pressure. If you have difficulty seek medical attention.

Do not try to kill the tick with methylated spirits or any other chemicals. This will cause the tick to inject more toxins. If you have a severe infestation by larval stage ticks (often referred to as grass ticks) take a bath for 30 minutes with 1 cup of bicarbonate of soda.

## How to reduce the likelihood of being bitten

Wear appropriate clothing when outdoors in tick areas including long sleeved shirts, long pants tucked into socks and a wide brimmed hat. Ticks are more easily detected on light coloured clothing.

Spray clothes and hats with an insect repellent and wear a repellent that contains DEET or Picaridin. All clothing should be removed on return from a known tick area and the body searched for ticks especially behind the ears, on the back of the head, groin, armpits and back of knees. Be careful where clothes are placed as they may introduce ticks to inside the house.

Don't forget to check children and pets. Many dogs are infested each year and can often die from tick paralysis.

Mow grass in the backyard and keep mulch and leaf litter away from the main entrance to the house. Trim shrubs overhanging paths and play areas.

A *Tick Alert* pamphlet can be downloaded from the NSW HealthWeb/Net site: [www.health.nsw.gov.au](http://www.health.nsw.gov.au) look under the *Common Health Topics*.

## Further information

For more information please contact your doctor, local public health unit or community health centre – see under NSW Government at the front of the *White Pages*.

### Public Health Units in NSW

#### Metropolitan

Central Sydney	9515 3180
South Eastern Sydney	9382 8333
Northern Sydney	9477 9400
South Western Sydney	9828 5944
Western Sydney	9840 3603
Wentworth	4734 2022

#### Rural

Central Coast	4349 4845
Mid North Coast	6588 2750
Mid Western	6339 5500
Hunter	4924 6477
Illawarra	4275 4600
New England	6766 2288
Northern Rivers	6620 7500
Macquarie	6841 2216
Southern NSW	4827 3428
Greater Murray	6021 4799
Far West	(08) 8080 1219

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NSW HealthWeb site. [www.health.nsw.gov.au](http://www.health.nsw.gov.au)

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