

# Tick bite

## What is a tick?

Ticks belong to the same class of creepy-crawlies as spiders, scorpions and mites - the arachnids. Ticks specialise in blood-sucking, and so their mouthparts can pierce the flesh of any animal they choose to feed on. It takes about a year for a full-size tick to grow from an egg.

The common species that causes problems for people, livestock and pets in Australia is *Ixodes holocyclus* or the paralysis tick. It occurs in a narrow strip on the east coast. It goes by different names, depending on its life-cycle stage:

- Infant, larval or hatchlings are called grass or seed ticks;
- Juveniles or nymphs are called bush ticks;
- Fully grown adults are called shell-backs or paralysis ticks.

At each stage of growth they need to feed on someone's blood, whether it's a bird's, reptile's, animal's or yours. Blood is their only food.

## Tick bites

Tick bites are common in Australia. Tick envenomation is a greater medical problem (especially for children) than snake or spider bite. There is also the risk of tick born infectious disease.

If you are bitten by grass ticks you may have tiny multiple bites that can cause extensive, extremely itchy rashes all over the body. These little ticks are almost invisible to the naked eye.

The next size, the nymphs or bush ticks are still difficult to see, and can stay embedded in the skin for some days before detection. It may just look like a speck of dirt on the skin. Sometimes several can bite in a group. After feeding on a person or animal, the nymphs tend to drop off. When an adult female tick bites a person or animal, it fills itself up with blood and can become as big as a watermelon seed (male adults don't feed). Adults tend to attack singly.

To stimulate blood flow, the tick injects saliva, containing powerful chemicals that have toxic effects. Most tick bites cause nothing more than local irritation at the bite site.

## How to remove a tick

Remove an attached tick with a fine pair of tweezers by grasping as close to the skin as possible and pulling gently but firmly upwards.

Do not kill the tick before removal. In other words, do not apply alcohol, methylated spirits or tea tree oil etc as this causes the tick to inject more toxins and bacteria.

## Allergic reaction to tick bite

The most common problem is an allergy to the toxins that the tick injects into the skin, and can be itchy for a couple of weeks. It causes redness and swelling, which may be quite extensive. For example, the whole face could swell up. This can be made worse by removing the tick in the wrong way.

Severe allergy with breathing difficulty is rare, but it is a medical emergency.

People and animals may develop weakness of limbs or paralysis after being bitten by an adult tick, especially if the tick has been there unnoticed for several days.

## Infections due to tick bite

Tick bites may cause two bacterial infections: spotted fever and Lyme disease. Not every tick bite leads to these infections, but you should be aware they are a possibility in case you or someone in your family becomes ill after a tick bite. If anyone develops a rash or fever after a tick bite, please see your doctor.

## Spotted fever (Qld tick typhus)

This is an illness caused by the bacteria *Rickettsia australis*. It starts with fever a few days after the tick bite. The site of the bite may become scabby and inflamed. The lymph glands may enlarge. A rash usually follows, which could look blisterly. Other symptoms may include headache, stiff neck and aching muscles and joints. The illness may be more severe in adults and the elderly. Two blood tests about 10 days apart will need to be taken to diagnose this infection. Antibiotic treatment is very effective.

## Lyme disease

This infection can be caused by several varieties of spirochaete bacteria, the most common is called *Borrelia burgdorferi*.

The illness usually starts as a rash within four weeks of the tick bite. It can cover large areas and has an unusual appearance. The bacteria can invade several systems of the body. It may produce a flu-like illness with fever, headache, sore throat, aching muscles. More serious effects are meningitis, weakness of facial muscles, joint swelling, heart palpitations and breathlessness. The symptoms may be prolonged and come to resemble chronic fatigue syndrome (CFS). Long standing Lyme disease can cause mental problems such as depression, irritability, poor concentration and hypersensitivity to light and sound.

Diagnosis is by a blood test. You may need a skin biopsy of the rash. Early treatment with antibiotics is helpful. Pregnant women who have a tick bite should see their doctor, as Lyme disease can affect the foetus.

## Prevention of tick bites

- Be aware of bushy areas where ticks are likely to be.
- Wear a broad-brimmed hat and be well covered up with light-coloured clothing.
- Treat clothes with pyrethrum spray and use insect repellent.
- Brush off clothing and pets before entering house and check for ticks on your body.
- If your garden is infested, spray pyrethrum into the bushes every few weeks.

Please see your GP if you have any concerns.

Contact: Tick Alert Group Support Inc (TAGS) PO Box 95, Mona Vale NSW 1660. Some of the information for this article was extracted with permission from their helpful information kit.