

## Lyme Disease / True or False?

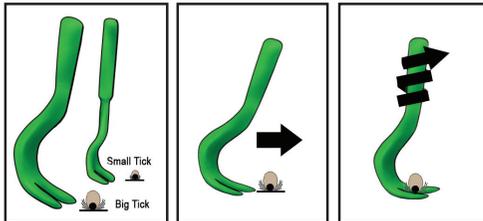
- Lyme disease is prevalent in Australia **TRUE**
- Lyme disease testing is 100% reliable **FALSE**
- Lyme disease is rare in Australia **FALSE**
- A one-off course of antibiotics will 'cure' Lyme disease **FALSE**
- Lyme disease can be transmitted from person to person (sexually and in utero) **TRUE**
- If you don't remember a tick bite, you don't have Lyme disease **FALSE**
- Chronic Lyme disease does exist **TRUE**

## HELP! I've Been Bitten

**Don't panic**, not all ticks carry the bacteria. Research suggests that prophylactic antibiotics after a tick bite are recommended. Many doctors have not had the opportunity to have studied Lyme disease. You are welcome to contact the Lyme Disease Association for support.

## How to Remove a Tick

**Tick Twister** (purchase link: [www.lymedisease.org.au/resources](http://www.lymedisease.org.au/resources))



### Fine Tweezers

Grasp as close to the head as possible  
Don't squeeze body



## Nymphal Size Ticks

For 'pin-head' or smaller ticks please see here:  
<http://www.lymedisease.org.au/about-lyme-disease/about-ticks/>

## Do's & Don'ts of Tick Removal

- **DO** grasp tickhead as close to skin as possible, pull straight or twist out, **DON'T** squeeze the body of the tick
- **DO** place tick in plastic ziplock bag with your name, date, site of bite, how long tick was attached and freeze (current testing: [www.lymedisease.org.au/resources](http://www.lymedisease.org.au/resources))
- **DON'T** apply anything (poison, repellent or chemical) to an attached tick

## About the Lyme Disease Association of Australia

The LDAA is an association comprised of volunteers committed to making changes to how Lyme disease patients are treated – both medically and personally.

### The LDAA provides:

- Streamlined international blood test kit delivery.
- Procedure outlines for those undertaking testing (overseas) – simplifying the process involved for patients and doctors in sending bloods.
- Support to families and patients who are affected by Lyme disease.
- Relevant and up to date Lyme information, research and political advancement news to the public.
- Information resources for medical personnel as well as opportunities and funding for Doctor training.
- Education for schools, clubs and organisations on precautions of Lyme disease and tick safety.
- Funding for Lyme disease research.

**The role of the LDAA is vital for the immediate assistance of people affected by Lyme disease.**  
**INFORMATION | SUPPORT | EDUCATION | AWARENESS**

## How You Can Help

- **Join and/or donate** via paypal or direct deposit. [www.lymedisease.org.au/help](http://www.lymedisease.org.au/help)
- **Lyme Awareness Saves Lives** – please pass these flyers on! Order more from our website.
- **Participate** in our 'Random Acts of Lymeness' campaign. [www.lymedisease.org.au/help/randomacts](http://www.lymedisease.org.au/help/randomacts)



**LYME DISEASE**  
ASSOCIATION OF AUSTRALIA  
For Lyme Disease Awareness & Action

## Connect With Us

Email: [info@lymedisease.org.au](mailto:info@lymedisease.org.au)  
Postal: PO Box 137 Stockton NSW 2295  
[www.lymedisease.org.au](http://www.lymedisease.org.au)  
Facebook: LymeDiseaseAustralia  
Twitter: @LymeDiseaseAus

# LYME DISEASE in Australia

Is this what's making you sick?

**LYME DISEASE**  
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For Lyme Disease Awareness & Action

## What is Lyme Disease?



Lyme disease is an infectious disease caused by bacteria from the genus - Borrelia. It is also known as Lyme Borreliosis and is the fastest growing tick borne illness in the world.

## How is it Transmitted?

Ticks feed on hosts such as, dogs, cats, kangaroos, wallabies, deer, rodents, birds and reptiles. They may then transmit any infections the animal carries (bacterial, parasitic, viral) to humans through a bite.

## Symptoms

Lyme disease is typically categorised into early and late stage disease. Early stage Lyme disease symptoms often present with headaches, fever, swollen lymph nodes, fatigue, muscle aches & joint pains and may be assumed to be the flu. A bull's eye rash is one diagnostic of Lyme disease, but occurs in less than 35% of cases.

The Borrelia bacteria that cause Lyme disease are a spiral shaped (spirochete) organism that have the ability to penetrate the body's tissues (including muscles and joints) and organs (including the heart and brain), resulting in a multi systemic infection. Symptoms can present and mimic conditions such as Multiple Sclerosis, Parkinson's disease, Motor Neurone disease (also known as Lou Gehrig's disease or Amyotrophic lateral sclerosis), Chronic Fatigue Syndrome, Juvenile Rheumatoid Arthritis, Lupus, Alzheimer's disease, Autism and Sarcoidosis to name a few.

Lyme disease is typically accompanied by a variety of co-infections that may be transmitted during a tick bite. These co-infections include parasitic organisms like Babesia and Theileria; viral infections like Epstein Barr Virus (EBV), Parvovirus and Cytomegalovirus (CMV), and bacteria's like Bartonella, Rickettsia, Ehrlichia, Coxiella, Mycoplasma and others.

With the bacteria being able to penetrate most parts of the body and the high possibility of co-infections, the symptom list of Lyme disease can be varied, intermittent, numerous and unique for each individual.

Lyme disease can cause mild, moderate and severe symptoms and if left untreated can be fatal.

For a comprehensive list of Lyme disease symptoms please visit:

[www.lymedisease.org.au](http://www.lymedisease.org.au)



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Your Lyme Disease Awareness & Action

## Preventing Lyme Disease

The best way to prevent Lyme disease is to prevent bites from ticks and other insects, and be aware of early symptoms.

Ticks can be anywhere and tick bites can happen at any time of the year. Ticks can be soft or hard and vary in size. Some ticks are so small they are the size of a pin head. 

Birds can be hosts for ticks – thus, anywhere a bird can fly, Lyme disease transmission is possible.

## Diagnosis

Lyme disease is primarily a clinical diagnosis, based on the patient's history, symptoms & presentation. Blood tests are relied upon to support a Lyme disease diagnosis but because current testing is not accurate, results are unable to be used to conclude a positive or negative diagnosis of Lyme disease.

A bulls eye rash is diagnostic of Lyme disease, but occurs in less than 35% of cases. Even if a rash does present, it can be mistaken for a spider bite or other skin conditions like ring worm.

It is important to remember that even if your blood tests are negative or you don't remember a rash, you should still ask your doctor to carefully evaluate you for Lyme disease, taking your symptoms and health history into full account.

## Treatment

A combination of therapies are required to address the bacteria, parasites, protozoans and viruses passed through the bite of a tick. Research indicates that initial combination treatment should persist for a minimum of 6-8 weeks and be repeated/extended if clinical symptoms persist. Research exploring the efficacy of treatments is advancing rapidly and each patient may require a individualised approach.

It is most important to realise that Lyme is a world-wide problem and the journey to recovery for late stage Lyme disease is more like a marathon than a sprint. 

## Preventing

## Late Stage Lyme Disease

Lyme disease can be contracted in whatever part of Australia you live or visit and is especially prevalent in areas with a high tick population. The best recommendations for Lyme disease prevention are:

- **Be aware of ticks** where you are. Wear light colored clothing, socks over pants and use DEET (skin)/permethrin (clothes) insect repellents whenever you may be exposed to ticks. Check yourself after being outside or with pets. Dry clothing in a hot dryer for 10 min. Ticks can be prevalent in highly populated areas as well as coastal and bush areas and can be active in any season.
- **Know that not all medical professionals are trained** to diagnose and treat Lyme disease.
- **Understand that blood and associated testing are not reliable** in the diagnosis of Lyme disease. False negatives are common. Lyme disease is diagnosed clinically by investigating symptoms and history. Some governments internationally have legislated guidelines for physicians to inform patients that Lyme disease is still a possibility and should be further investigated even if a blood test shows a negative result.
- **Be aware that many people are misdiagnosed** with other conditions before a diagnosis of Lyme disease is made – this can be detrimental to the patient as treatment for Lyme disease is specific and other disease treatments can complicate Lyme disease.
- **Understand that the sooner you start treatment** the better the outcome – If you suspect or know you have been bitten by a tick consult a Lyme-aware practitioner for treatment. It is not advisable to wait for symptoms to present as the delay may allow the tick borne infection to progress.
- **Ensure that if your current doctor is not Lyme aware** and fails to acknowledge your concerns or symptoms that you persist in finding one who will evaluate you. Practitioners educated in Lyme treatment understand that treatment is individualised and length of time varies. You can contact us for any assistance in finding a medical practitioner.
- **Expect to get better** – stopping treatment if you are still experiencing symptoms is not advised – active symptoms indicate an active disease. Treatment may be lengthy and diverse, but you should expect to return to full health. 