

# WELSH HEALTH CIRCULAR



Llywodraeth Cymru  
Welsh Government

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**Title:** Raising awareness of Lyme disease and ensuring prompt and consistent diagnosis and treatment

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**For Action by:**  
Chief Executives - Health Boards and NHS Trusts  
**For information to:**  
Local Authority Directors of Public Protection

**Action required by:** As soon as practicable.

**Sender:** Dr Frank Atherton, Chief Medical Officer/Medical Director NHS Wales

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**Enclosure(s):** Letter from the Chief Medical Officer for Wales

Dear colleague,

## **Raising awareness of Lyme disease and ensuring prompt and consistent diagnosis and treatment**

### **Summary**

Lyme disease, is a zoonotic bacterial infection which can be spread to humans from the bite of an infected tick. Whilst most tick bites do not cause Lyme disease, everyone should be aware of the potential risk.

In Wales, as well as elsewhere in the UK, cases of laboratory-confirmed Lyme disease have increased in recent years. This is as a result of better reporting, increased diagnostic testing, and increased awareness by the public and healthcare professionals, but awareness and care still needs to be improved.

### **About Lyme disease**

*Ixodes ricinus* is a tiny spider-like tick (also known as the sheep, deer or woodland tick) commonly found on heathland, moorland and forested areas, especially in long grass but can also be found in urban parkland. The ticks feed on the blood of birds, rodents and other mammals, including humans. Ticks that carry the bacteria which cause Lyme disease can be found throughout the UK, continental Europe and North America, however not all ticks carry Lyme disease (spirochaete *Borrelia burgdorferi*).

### **Public Awareness**

Public awareness of tick bites and their potential for Lyme disease is crucial. A new public information leaflet has recently been finalised and is available on the Public Health Wales website:

<http://www.wales.nhs.uk/sitesplus/888/page/43862> and the NHS Direct website:

<http://www.nhsdirect.wales.nhs.uk/encyclopaedia/l/article/lymedisease/>

### **Removing ticks correctly**

Prompt and correct tick removal within 24 hours is particularly important as evidence suggests that Lyme disease transmission risk increases the longer a tick is feeding. Healthcare professionals should familiarise themselves with how to remove a tick correctly.

### **Diagnosis**

Tick bites are more likely to occur in late spring, early summer and autumn because these are peak feeding periods for these ticks and times of year when people are more likely to take part in outdoor activities, including hiking and camping; tick bites can however occur at any time of year. A history of exposure to 'ticky' environments in the UK, or overseas is important in establishing a diagnosis of Lyme disease as not everyone will be aware of a

tick bite. Ticks favour warm, moist areas of the body for long-term attachment and may easily go unnoticed. Those in close contact with the environment by virtue of their occupation or leisure activities may be at particular risk of infection.

In people who develop Lyme disease, the most common and often the only symptom, is a slowly expanding pink or reddish rash (erythema migrans) gradually extending from the site of the tick bite. This usually becomes noticeable from three to ten days after a bite. Occasionally it can present up to 3 months after the tick bite; infection may however be asymptomatic. A rapid-onset local reaction may not be erythema migrans. The rash can cover a large area and last for weeks if untreated.

Some patients may have intermittent and non-specific 'flu-like symptoms in the first few weeks of an infection, with a temperature, malaise, muscle and joint aches and pains, but without any significant respiratory symptoms (unlike influenza). More serious symptoms may develop several weeks or months later if Lyme disease is untreated or treatment isn't started early on. It can also present with lymphocytoma, signs of neurological involvement including facial palsy, viral-like meningitis, radiculopathy (painful nerve inflammation), arthritis and carditis or heart block.

### **Testing**

Testing in Wales is performed at the Public Health Wales Cardiff laboratory, which follows the internationally validated two-step approach of serological testing followed by referral to the UK reference laboratory for confirmation of all locally positive or equivocal results. It is important that relevant clinical details accompany any test request so that samples can be tested appropriately. The initial serological test may be negative if the antibody reaction has not become established or has been stopped by early antibiotic use. If the initial test is negative repeat after 4-6 weeks.

### **Treatment**

Lyme disease can be treated effectively with antibiotics if it's detected early:  
<https://www.bmj.com/content/361/bmj.k1261/infographic>

### **Reporting**

Enhanced surveillance of Lyme disease in England and Wales was introduced in 1996 in order to improve reporting levels and to collect additional clinical and epidemiological information on cases. Please can you ensure that cases of Lyme disease are reported to Public Health Wales via their all-Wales number: **0300 00 300 32**.

### **National Institute for Health and Care Excellence (NICE) Guidance**

NICE has developed Lyme disease guidance, which includes recommendations for awareness raising, diagnosis, management and patient information. This guidance has now been published on the NICE website:  
<https://www.nice.org.uk/guidance/ng95>.

A summary of the guidance can also be found on the BMJ website:  
<http://bit.ly/BMJlymeNG>.

I would be grateful if you could ensure that health professionals, particularly GPs and those working in A&E Departments are aware of this guidance, so they know how to remove a tick correctly, recognise possible symptoms, understand the arrangements for testing and report cases for nationwide surveillance.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Frank Atherton', with a horizontal line extending to the right.

**Dr Frank Atherton**  
**Chief Medical Officer/Medical Director NHS Wales**