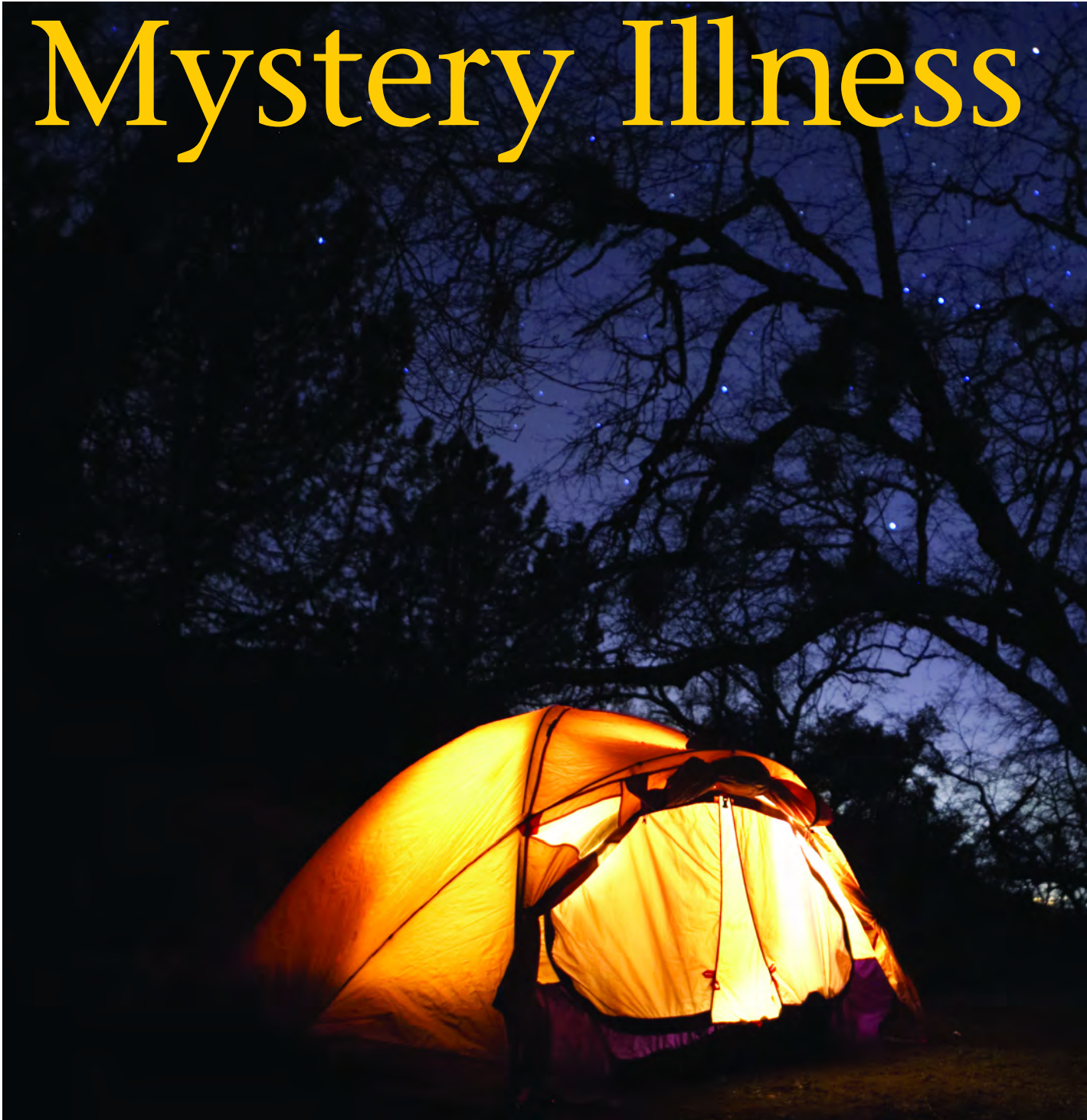


# Nature's

# Mystery Illness



## There's danger in that waving grass and leafy woodland

KRISTIN JENKINS



Ticks wait on the tips of grass blades, then attach themselves to the bare arms and legs of passersby

Madeleine Weeks, then 37 and a Toronto mother of two young daughters, was on holiday in 1991 at her parents' New England home just outside of Urbana in Maryland when she first noticed the big red patch on her knee.

She'd just come back from a nature walk with the girls through long grass and woodland and realized she had been scratching her knee absent-mindedly. Then, Madeleine thought she felt something fall out of the centre of the red patch. "It wasn't like a regular bug bite," she recalls.

Two days later, feeling feverish, nauseated and exhausted, she assumed she was coming down with the flu. Her joints started to ache — a lot. "My knees were killing me," she says. "It hurt so much just to go up and down the stairs."

About a week later, she returned home to Toronto. That's when strange lesions began to appear on her thighs and arms. "They were like blisters that would break and then turn into weeping craters," Madeleine recalls. Even with an antibiotic ointment, they wouldn't heal.

Exasperated and worried, she made an appointment with her physician, who, by chance, had recently given a presentation on Lyme disease. "He asked where I had been and whether or not I had had flu-like symptoms," says Madeleine. After running blood tests, her doctor advised her to go ahead with treatment without waiting for the test results. After a course of penicillin, Madeleine's symptoms disappeared, never to return.

Though the diagnosis was never confirmed by her blood tests, she and her physician remain convinced the culprit was Lyme disease. "I was really lucky because there was little awareness of Lyme disease in Canada at that time," she says.

### What is Lyme disease?

First recognized in 1975 when a cluster of patients in Lyme, Conn., developed a strange type of arthritis, Lyme disease is an infection caused by the bacterium *Borrelia burgdorferi*, which is transmitted to humans through the bites of infected ticks. Although rarely fatal, this infectious disease can cause life-threatening heart complications. Infection during pregnancy

FREDERICK NACINO/ISTOCKPHOTO; INSET: MASTRERILE

can result in miscarriage, premature birth or stillbirth.

Ticks, a type of mite, vary in size and colour and attach themselves when bare arms and legs brush against vegetation such as tall grasses. Carried in mice, squirrels, birds and white-tailed deer, *Borrelia* is transmitted to ticks feeding on infected animals. The black-legged tick (see right) is a common vector.

Cases of Lyme disease have been reported in parts of Europe, Asia and throughout much of North America, particularly in the New England region of the U.S. Although Lyme

disease is not a reportable disease in this country, the Public Health Agency of Canada does monitor cases.

The official number of cases in Canada is relatively low, with 20 to 60 new cases reported annually. More than half of these are associated with travel outside of the country. The actual number of cases, however, is undoubtedly higher since not all clinical cases are captured by current surveillance. And there are



indications that the incidence of cases is increasing.

Jim Wilson, president of the Canadian Lyme Disease Foundation, is one who definitely believes that the official count is an underestimation.

“Here at the foundation, we can only go by the number of concerned people contacting us. Right now, we are hearing from about 2,000 people a year.”

The risk of exposure to infected

## The three stages of Lyme disease

**1** Within three days to one month of being bitten by an infected tick, 70% to 80% of people will develop a characteristic circular rash called erythema migrans (EM). This is also known as a bull’s-eye rash because of its appearance — a red ring with a clear centre. If you see a bull’s-eye rash, get immediate treatment, advises the Westbank, B.C.-based Canadian Lyme Disease Foundation.

In addition to EM, early infection can be accompanied by flu-like symptoms such as...

- \* fatigue
- \* chills
- \* fever
- \* headache
- \* muscle and joint pain
- \* swollen lymph nodes

**2** Left untreated, the disease will progress to the second stage. This can last for several months and includes such symptoms as...

- \* multiple skin rashes
- \* arthritic symptoms
- \* heart palpitations
- \* extreme fatigue and general weakness
- \* disorders of the central and peripheral nervous systems, including numbness, pain, weakness, temporary paralysis of the facial muscles (Bell’s palsy) and visual disturbances — as well as meningitis-like symptoms such as fever, stiff neck and severe headache

**3** Without treatment, the third stage can last for years. Symptoms include...

- \* chronic arthritis
- \* neurological symptoms such as decreased concentration, irritability, memory and sleep disorders, and nerve damage in the arms and legs.
- \* miscarriage, premature birth or stillbirth if infection occurs during pregnancy



ticks is highest in these areas: parts of Nova Scotia, southern and eastern Ontario, southeastern Manitoba and much of southern British Columbia. Although the number of cases acquired in Canada has grown in recent years, there are still vastly fewer cases contracted here than in areas where Lyme disease is endemic, such as the northeastern U.S. If you're headed to the New England area this summer, be careful!

"You won't really notice the ticks," warns Dr. Karl Weiss, an associate professor of medicine at Maisonneuve-Rosemont Hospital at the University of Montreal. "But if you're strolling along the beaches, barefoot and in shorts, near the tall grasses, you're at risk." Children are particularly vulnerable because they play close to the ground and often wear brief clothing.

Your pets can play a role in transmitting Lyme disease, too. "Your dog runs around in the grass or in the woods happily," explains Weiss — happily picking up ticks, that is. "Then you go back home and the dog sits next to you while you're watching TV." One tick bite and you could risk a case of Lyme disease.

The good news is that although this infection can have serious symptoms, it is highly preventable and can be cured with antibiotics such as penicillin, doxycycline, amoxicillin or ceftriaxone — particularly in its early stages.

Like Madeleine, a person with suspected Lyme disease is usually treated with pre-emptive therapy before blood tests can actually confirm its presence. Because early tests are frequently negative, the diagnosis is often based on clinical symptoms and objective signs, such as the characteristic bull's-eye rash.

For more information on Lyme disease, go to [www.phac-aspc.gc.ca](http://www.phac-aspc.gc.ca) or [www.canlyme.com](http://www.canlyme.com).



## Protect yourself

In health as in hockey, the best offence is a good defence, so whether you're headed to Cape Cod or cottage country, experts advise you to protect yourself and your family. Here's what they recommend.

**When walking along beaches or pathways** with plants and grasses, especially in endemic areas such as New England, southern and eastern Ontario, southeastern Manitoba, southern British Columbia and parts of Nova Scotia, wear protective clothing. This includes closed shoes, long-sleeved shirts fitted tightly around the wrists and long pants tucked into socks or boots. Light-coloured clothing makes it easier to spot ticks and remove them. Apply a DEET-based insect repellent. "And when you come indoors after a trek, check your kids and yourself," advises the University of Montreal's Dr. Karl Weiss. "Ticks are not huge but they're not so small that you need a microscope to see them, either."

**If you do find a tick attached to the skin**, swab the area with alcohol and use tweezers to grasp the tick's mouth and head parts as close to the skin as possible. It's important to remove the tick in one piece, so pull slowly. Do not twist, rotate or crush it during removal, or the head can remain buried and cause infection.

**Once the tick is out**, submerge it in a container of rubbing alcohol. Note the day of the tick bite and save the tick in a doubled plastic freezer bag or in an empty pill vial. If you develop symptoms, take the tick to your physician for identification. That will help make a definitive diagnosis, since early blood tests often yield negative results.

**Swab the affected area of skin again** with alcohol or wash thoroughly with soap and water.

**Make sure Rover is regularly treated** with a long-acting tick-control medication. Vacuum his favourite sleeping spots and launder his blanket and cushion regularly. 🐾