

Montgomery Parks Living with Wildlife

Lyme Disease and Ticks



Size difference between a nymph and adult tick on a person's finger.

Lyme disease is an illness caused by the bacteria, *Borrelia burgdorferi*, transmitted to humans and animals from the bite of certain ticks, particularly the black-legged tick (*Ixodes scapularis*). The nymph stage of the tick, which is active from late spring through summer, is most likely to transmit Lyme disease. – [Preventing Lyme Disease in Montgomery County](#) (pdf, 333KB).

The black-legged tick is a tiny tick, often no bigger than the head of a pin and some are much smaller. Black-legged ticks feed on many animals including deer, mice, chipmunks, squirrels, rabbits, birds and domestic animals. Lyme disease is actually transmitted to ticks primarily by mice and chipmunks, not deer. While there is evidence that an overabundant deer population can increase the number of deer ticks in a given area, there is also evidence indicating that, once ticks are present, reducing deer density may only have a slight effect on reducing the numbers of ticks unless deer are reduced to unrealistically low number. The best defense against Lyme disease is protection against the ticks.

Lyme disease was first recognized in Lyme, Connecticut in 1975 and is most prevalent in the northeast and upper Midwest areas of the United States. In 2013, the [U.S. Centers for Disease Control and Prevention](#) reported 27,203 confirmed cases of Lyme disease nationwide, with over 9,104 additional probable cases. Of these, the State of Maryland reported 801 confirmed cases and 396 additional probable cases. The last reliable data for Montgomery County (2012), reported 341 cases of Lyme disease countywide. Symptoms of Lyme disease may include: fever, muscle and joint aches, fatigue and a distinctive “bull’s-eye” shaped skin rash. If left untreated, Lyme disease can progress to more serious problems, including joint and muscle swelling and heart disease. When caught early, Lyme disease can be treated with antibiotics. For concerns regarding Lyme disease in Montgomery County, contact the County [Department of Health and Human Services](#) at 240-777-1755.

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Bull's-eye shaped skin rash symptom of Lyme Disease.

Photo Credit: Montgomery County Department of Health and Human Services

It is also important to note that, although Lyme disease is the most common tick-borne disease (especially in this region), it is not the only illness transmitted by ticks. Other notable tick-borne illnesses include: Rocky Mountain Spotted Fever, Ehrlichiosis, Anaplasmosis and others, though not all of these are prevalent in Montgomery County, MD.

The best defense against Lyme disease and other tick-borne diseases is protection from tick bites. Ticks do not jump or fly onto humans but wait on low vegetation and attach themselves to hosts (mice, deer and humans) as they walk by. The following steps will help protect against Lyme disease:

- **Conduct tick checks** on yourself, your children and your pets every four to six hours for several days after you have been in a tick infested area. Because the black-legged tick is very small, about the size of the head of a pin or smaller, it is especially important to **thoroughly check for ticks** after being in areas where they live.
- **Wear light-colored clothing** so that ticks are easier to see and remove.
- **Minimize exposure to ticks.** Tuck pant legs into socks and boots. Wear long-sleeved shirts buttoned at the wrist. Tuck shirts into pants to keep ticks on the outside of clothing.
- **Carefully remove attached ticks promptly** – transfer of the disease usually takes 24 hours or more.
- Around your home, **modify your landscape** to make the area less hospitable to ticks. Keep grass cut and underbrush thinned in yards. Remove leaf litter, prune trees, and clear underbrush/woodpiles- resisting the urge to move such debris to the nearby wood edge where it will improve habitat for nesting ticks and their hosts. Increasing sunlight reaching the yard can significantly reduce the number of ticks in some areas. The state of Connecticut has put out a [manual](#) with information on how to reduce ticks around the home.

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- **Eliminate the living places** of small rodents.
- **Follow directions carefully** if chemicals are used for tick control or hire a professional.
- **Avoid tick-infested areas** such as tall grass and dense vegetation, and walk in the center of mowed trails, while hiking, **to avoid brushing against vegetation.**
- If you are outdoors regularly, in areas thought to harbor ticks, **consider long-lasting “Permethrin” repellents** for clothing. Apply tick repellent to areas of the body and clothing that may come in contact with grass and brush. Repellents include those containing up to 50% DEET for adults or less than 30% for children. A repellent/pesticide containing 0.5 percent Permethrin may be applied to clothing but should not be used on skin.
- Follow directions carefully and **do not overuse repellents.** Some tick repellents can cause toxic or allergic reactions.
- Ask your veterinarian to recommend **tick control methods for your pets.** Animals can get Lyme disease, but they do not transmit these diseases to humans. However, pets can bring ticks into your house.

Black-legged ticks are tiny, often no bigger than the head of a pin and often smaller.



Black-legged Tick on a person's fingernail.

Montgomery County Department of Health and Human Services

The [Montgomery County MD Department of Health and Human Services](http://www.montgomeryparks.org) (HHS) tracks cases of Lyme disease and provides education for the public and health professionals in the county. The increase in lab tests being done is an indication that the medical community is more aware of the symptoms of Lyme disease and labs are being ordered more often to assist in diagnosis. It may, however, also be an indication that Lyme disease cases are rising in the county. Education to the medical community is key to increasing diagnosis and early treatment for Lyme disease.

When caught early, Lyme disease is usually easily treated with antibiotics. The disease, however, can be difficult to diagnose because many tests are unreliable, and the symptoms resemble those of other ailments including the flu and arthritis. Some in the medical community feel that when left untreated, Lyme disease can become chronic resulting in long-lasting and debilitating health problems. This most often results when it is not diagnosed, and treatment is delayed for an extended period of time. The increased education efforts directed at the public and doctors should help ensure that the disease is detected and treated more quickly.



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Additional efforts by the Department of Health and Human Services to address Lyme disease include:

- Presentations in the community and distribution of literature on Lyme disease prevention
- Counseling of individual patients on prevention
- Surveillance on positive lab slips to identify true cases
- Referrals to physicians for diagnosis and treatment
- Education of community physicians on Lyme Disease diagnosis and treatment Montgomery County promotes personal protection from ticks and awareness of the symptoms of the illness as the best defense against Lyme disease.

Additional Information

Lyme Disease Pamphlets

- [Preventing Lyme Disease in Montgomery County](#) (pdf, 333KB). Get a printed copy by calling 1(800) 886- 5963
- [Tick Management Handbook](#) (PDF, 6.82MB) published by the State of Connecticut with information on how to reduce ticks around the home. It includes a variety of tick reduction methods from how to landscape your yard to the use of various products including pesticide applications to lawns and more targeted approaches including the Tick Control System – www.tickboxtcs.com and [Damminix Tick Tubes](#).

Weblinks

- [Montgomery County MD Department of Health and Human Services](#)
- [U.S. Centers for Disease Control and Prevention: Ticks](#)
- [The Centers for Disease Control: Lyme Disease](#)
- [MD Department of Health and Mental Hygiene](#)
- [American Lyme Disease Foundation](#)
- [National Capital Lyme Disease Association](#) – Information and local support groups – (703) 821-8833