

Tiny Trouble

Lyme disease and
other tick-carried diseases on the rise in Ohio.

by *Alayna DeMartini, Ohio State University*



PHOTO BY SCOTT BAUER, USDA ARS

► Since 2010, a consistently increasing number of Ohioans have reported having Lyme disease, which is spread by the blacklegged deer tick.

A steadily rising number of Lyme disease cases are being reported in Ohio, transmitted by a tick that can be as small as a poppy seed.

Every year since 2010, when Ohio's first population of blacklegged deer ticks was discovered in Coshocton County, the number of people infected with Lyme disease has increased. Last year's statewide total of 160 human cases of the disease is more than three and a half times the 2010 total.

Besides the increase in Lyme disease, more Ohioans are also reporting cases of other tick-related diseases, leading to concern about tick populations that used to be rare in the state.

Blacklegged deer ticks, which can transmit Lyme disease, are spreading. One challenge in fending them off is that in their nymph stage they're easily overlooked, said Glen Needham, associate professor emeritus of entomology with the College of Food, Agricultural and Environmental Sciences at the Ohio State University (OSU).

"The blacklegged deer tick has established populations in 30 to 40 counties in Ohio, primarily in the southern and eastern parts of the state," Needham said.

In the nymph stage, which can extend from spring through fall, the tick can appear on skin to be a speck of dirt or a freckle.

"It is so tiny and it feeds so quickly that

sometimes people go to the doctor with symptoms, but don't connect it to having been bitten," Needham said.

Lyme disease can cause a rash that looks like a bull's-eye and flu-like symptoms including fever, headache, and muscle and joint aches. Antibiotics can cure most cases of Lyme disease.

If a blood sample is taken from a person too early in the disease, it can come back as negative for Lyme disease, Needham pointed out.

"The doctor may then pass on giving you an antibiotic, and then you end up with the later stages of Lyme disease," Needham said.

Keep checking yourself

A warm winter can mean the blacklegged tick is active all year as opposed to just in the spring and summer, said Tammi Rogers, program assistant for agriculture and natural resources for the OSU Extension office in Coshocton County.

Rogers assisted Needham in 2010 with surveying the tick population in the county.

Blacklegged deer ticks most often are found in the woods, but that hasn't made people overly concerned about venturing into the forest, Rogers said.

"I wouldn't say they're leery," Rogers said. "People have just had to kind of change their mind-set and think: I need to be checking for

ticks year-round on me instead of just in the summer months."

Another tick to be watchful of in Ohio is the American dog tick, which can transmit Rocky Mountain spotted fever.

While reported cases of Ohio residents infected with Rocky Mountain spotted fever have also risen in recent years, the annual totals are significantly smaller than the number of Lyme disease cases. In 2016, a total of 24 Ohioans reported they had Rocky Mountain spotted fever.

Early symptoms of the infection include: severe headache and high fever, then a few days later, a rash usually appears on wrists and ankles. Caught early, the disease can be treated successfully with antibiotics.

Unlike the blacklegged deer tick, the American dog tick is much larger and therefore easier to spot. It gravitates to the head.

"It may be that you're in the shower shampooing your hair and you hit a bump, then you find out it has eight legs," Needham said.

In southern Ohio, the Lone Star tick, which was rare in the 1970s and 1980s, now is the most common tick that residents who are bitten bring to the health departments in Jackson and Scioto counties, Needham said.

The Lone Star tick can transmit ehrlichiosis. Typical symptoms of the disease include fever, headache, fatigue and muscle aches, which often occur one to two weeks after a tick bite.

"We are seeing more dogs and people infected with ehrlichiosis in southern Ohio," Needham said.

Despite the rise in tick-transmitted diseases in Ohio, Needham said covering up before going into the woods or wearing a repellent with DEET or picaridin can go a long way toward keeping ticks from biting. Pets should be protected all year with a veterinary-prescribed product, as dogs are highly susceptible to many tick-borne diseases.

If a tick is found attached, Needham recommends that you immediately remove it by using pointy tweezers, another tool, or your finger and thumb, ideally protected by gloves to prevent disease transmission. Save the tick in a plastic bag, pill bottle or travel-sized hand sanitizer container. Showing the tick to a healthcare professional could help the professional connect any symptoms to the type of tick that bit you.

For more information about ticks in Ohio, visit go.osu.edu/tick. The Centers for Disease Control and Prevention (CDC) provides a resource on ticks and tick-borne diseases across the country at <https://www.cdc.gov/ticks/>.

