

How to Protect Yourself From Mosquitoes and Ticks



The C.D.C. says tickborne diseases like Lyme are rising steadily in the Northeast, which has more trees now than a century ago.

By Roni Caryn Rabin

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Just when you thought it was warm enough to venture outdoors again, health officials are warning that the number of Americans infected by mosquito, tick and flea bites has [more than tripled in recent years](#).

Tick-borne diseases like Lyme and Rocky Mountain spotted fever have been increasing in the Northeast, Upper Midwest and California, and mosquitoes may be carrying West Nile virus and, in some parts of the United States, Zika. The only flea-borne disease is plague, but it, thankfully, is extremely rare.

There's no magic pill or vaccine to prevent disease infections, but you can take steps to protect yourself and your family from bites — and it all starts with awareness, physicians and consumer advocates say. “Recognize that this is a problem that's worthy of your time and attention,” said Dorothy Leland, director of communications for Lymedisease.org, a patient advocacy organization.

“This is one concern in life that's preventable by following some simple guidelines, so it's worth taking precautions,” said Dr. David Weber, a professor of medicine and medical director of UNC Hospitals' departments of epidemiology and occupational health service, and a member of the hospitals' Zika Response Working Group.

Here are measures you can take, some of which provide two-for-one protection against both ticks and mosquitoes.

Cover up, even when it's hot out

“Build a protective shield around yourself,” Ms. Leland recommends. If you're going hiking in tick country, wear long pants, long sleeves, shoes and socks, and tuck your pants into your socks to avoid any exposed skin around the ankles.

Wear a hat and a bandanna around your neck to cover up even more skin; if you have long hair, pull it back into a ponytail or braids.

Consider purchasing clothing that has been pre-treated with the insecticide permethrin, which repels both ticks and mosquitoes, though it may be less effective against ticks.

Just spraying closed shoes with permethrin can be effective, Ms. Leland suggested. “There are studies that show that just protecting your feet can do an amazing job against ticks because they tend to be low to the

ground, so their entry point is that they often climb up on your shoes and keep going and get to your skin,” she said.

Mind where you’re going, and avoid areas that are especially attractive to ticks, like tall grassy fields, said Dr. Weber.

“Ticks don’t fly and they don’t jump,” Dr. Weber said. “They live on grasses, and when a human goes by, they leave the grass and attach themselves to the human.” He recommends staying in the center of a trail when walking in the woods and avoiding bushy areas and grasslands. Avoid sitting on downed logs, where ticks like to nestle, Ms. Leland said.

Use insect repellent on exposed skin

The Centers for Disease Control and Prevention and the Environmental Protection Agency recommend [using mosquito repellents](#) that have as their active ingredient either DEET; picaridin; IR3535; oil of lemon eucalyptus (OLE) or para-menthane-diol (PMD); or 2-undecanone.

Only DEET, picaridin and IR3535 are [effective agents against ticks](#), and will require higher concentrations than when used against mosquitoes, so read the package labels carefully and reapply as needed. (Wirecutter, a New York Times Company that reviews products, has a list of the [best bug repellents](#).)

Adults should apply repellent to children, but not to very young infants, Dr. Weber said. Babies under 2 months should not use repellents and OLE and PMD should not be used on children under 3. For all children, avoid putting repellents on their hands, or near their eyes and mouths. If you’re also using sunscreen, apply the sunscreen first, and then the mosquito repellent afterward.

Check yourself for ticks after a hike

Take a shower after your hike and check yourself for ticks. Make sure to feel your scalp under your hair, and check folds of skin, your private parts, behind your ears and behind your knees.

Parents should check their children, and adults should have someone else check their backs.

“Look in your clothes for ticks,” Dr. Weber suggested, and throw them in the dryer on high heat if you’re concerned. “Do a full body check by looking in a mirror, and check hidden spots: behind the knees, the waist area, the bellybutton. That’s where they like to hide.”

Showering may wash away ticks that are riding on you, but if you find a tick that’s embedded in the skin, use pointy tweezers to remove it (you can get more detailed [instructions online](#)). “Grasp it and pull it straight out, slowly but firmly,” Ms. Leland advised.

And don’t forget to check your dogs when they come in from outside, taking care to protect yourself while you’re checking them. “Dogs, particularly those with long hair, can be a magnet for ticks,” Ms. Leland said.

Minimize exposure in your home and yard

Mosquitoes breed in fresh water and can reproduce in as little as a bottle cap full of water, so rid your yard and deck of empty flower pots, bird baths or bowls where water can accumulate. (If you keep a dog’s water bowl outside, empty and refresh it frequently).

Make sure your window screens are intact — “it doesn’t take a very big hole to let mosquitoes in,” Dr. Weber said. It’s best to use air-conditioning if you can, as mosquitoes are less active in cooler air.

Practice defensive gardening to make your yard inhospitable to ticks. Use fencing to keep out deer that carry ticks, prune trees, keep the grass cut short by mowing often (sorry!), clear leaves and remove overgrowth from the outdoor areas you use the most. (Wirecutter also has a list of the [best bug killing gear](#).)

Depending on where you live, you may want to use sprays as well. Check your local, state or county health department website to learn more about local conditions. For more information, consult the [Connecticut Agricultural Experiment Station Tick Management Handbook](#).

Another surprisingly easy [low-tech way to protect yourself from mosquitoes](#) is to set up an electric fan on a table near your seating area. The breeze it creates disperses the human scents that draw female mosquitoes, and mosquitoes have a hard time flying into the wind. The method is endorsed by the American Mosquito Control Association, a nonprofit group that publishes a journal.

And if you're camping outdoors or don't have screens on your windows, use mosquito nets around your bedding.

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