

BUG OFF

Sprays, lotions, or fans? We set the record straight on what really works to keep mosquitoes, ticks, bees, and wasps from spoiling summer fun.

MOSQUITOES

KEEP AWAY

For preventing bites, your best bet is a product containing DEET. Research shows it outperforms other repellents and ultrasonic devices. Look for products with 25% to 35% DEET; you don't need to go higher, although be sure to reapply per the label directions. If you want to avoid DEET, picaridin (10% to 20%) is a close second, followed by oil of lemon eucalyptus (40%), says Joseph M. Conlon, technical advisor for the American Mosquito Control Association.

■ **YARDWORK**
Remove debris like tires, tarps, and

urns that collect water where mosquitoes lay their eggs, advises Jody Gangloff-Kaufmann, Ph.D., an entomologist at Cornell University. Also consider spraying the yard to help limit the population.

For porch-sitting or outdoor dining, put pedestal fans around the table and box fans near your legs. The current will carry away the bugs, including Asian tiger mosquitoes (carriers of West Nile virus), which favor lower extremities. Skip zappers; they attract more male mosquitoes (who don't bite) than female. And there's little evidence that citronella candles or oils do anything except smell nice.

ONCE BITTEN

Typically a mosquito bite causes only an annoyingly itchy bump, best relieved with a dab of antihistamine cream. But depending on species and location, mosquitoes carry a number of potentially serious diseases, including West Nile virus, encephalitis strains, and Zika (so far only in Florida and Texas in the mainland United States). Check with your doctor if you develop a rash, headache, nausea, aches, pains, or other flulike symptoms in the few days and weeks after a bite.

[SWATTING AT MOSQUITOES WORKS]

New research shows that the air current you create when swatting carries the mosquitoes away. They learn to associate your scent with that unpleasant motion, so they look for other prey.



STINGING INSECTS

KEEP AWAY

Flowery scents are a main attraction for bees, so on days you'll be outdoors, consider using neutral-smelling hair products and lotion. Also know that wasps are drawn to food, especially sweets, so cover food and garbage. If a bee or wasp comes near, move away calmly—into shade if possible, Gangloff-Kaufmann says. If you panic

and swat, the insect could release alarm pheromones calling out support from fellow buzzers.

■ **YARDWORK**
Fruit trees are big attractants in late summer and early fall, so don't picnic under the apple tree then. Be alert for yellow jacket nests (gray honeycombs) on the ground and in piles of leaves or compost. Wasps prey on other insects, so if you see a papery wasp nest on the eaves of your house or a fence, let it be unless the wasps are bothering you.

ONCE BITTEN

For a bee sting, quickly removing the stinger reduces the amount of venom entering the body, which starts happening within seconds. Wipe the area with gauze or scrape with a clean fingernail, then rinse with soap and cold water to get rid of any residue venom and reduce swelling. For all stings, apply an ice pack or cold compress ASAP. Some people say applying a paste of baking soda and vinegar can also help mitigate the reaction.

TICKS

KEEP AWAY

A repellent with DEET is the gold standard. For extra protection, spray your clothes with a permethrin-based product. If you're hiking or working in brush or tall grass, wear a long-sleeve shirt and long pants tucked into socks.

■ **YARDWORK**
Keep grass trimmed because ticks like to hang out on long grass and hop on deer or mice. If your yard borders a woody area, you can create a 3-foot-wide wood chip or gravel "moat" at that border to discourage ticks from making their way in. You can also set out tubes filled with permethrin-soaked cotton. Mice take the cotton

TICK CHECK
SCAN FOR TICKS NIGHTLY. (IT TAKES 36-48 HOURS FOR A TICK TO TRANSMIT LYME BACTERIA AFTER BITING YOU.) PAY ATTENTION TO YOUR SCALP, WAIST, UNDER THE ARMS, IN & AROUND THE EARS AND BELLY BUTTON, AND BACKS OF KNEES.

for nests, and the chemical kills ticks hitching a ride. (The mice are unharmed.)

ONCE BITTEN

Remove a tick by pulling straight up with tweezers; don't leave any of the tick behind. Check to see if your doctor wants to ID the tick, says Amesh Adalja, M.D., spokesperson for the Infectious Diseases Society.

Then keep an eye out for Lyme disease symptoms: joint pain, fatigue, fever, rash. It can take a few weeks for antibodies to develop and result in a positive test, so you'll likely have to get two tests a few weeks apart to confirm. Also know that doctors are advised to start antibiotics once you have symptoms, especially the characteristic bull's-eye rash. ■



[ALLERGY ALERT]

About 5 percent of people are allergic to insect venom. Call 911 for a swollen throat, tongue, or face; dizziness; or trouble breathing.