

Prevention

Q. What can I do to reduce my risk of becoming infected with West Nile virus?

A. Here are preventive measures that you and your family can take:

Protect yourself from mosquito bites:

- Apply insect repellent to exposed skin. Generally, the the more active ingredient a repellent contains the longer it can protect you from mosquito bites. A higher percentage of active ingredient in a repellent does not mean that your protection is better—just that it will last longer. [Click here for more on insect repellent active ingredients](#). Choose a repellent that provides protection for the amount of time that you will be outdoors.
 - Repellents may irritate the eyes and mouth, so avoid applying repellent to the hands of children.
 - *Whenever you use an insecticide or insect repellent, be sure to read and follow the manufacturer's DIRECTIONS FOR USE, as printed on the product.*
 - For detailed information about using repellents, see the [Insect Repellent Use and Safety](#) questions.
- Spray clothing with repellents containing permethrin or another EPA-registered repellent since mosquitoes may bite through thin clothing. Do not apply repellents containing permethrin directly to exposed skin. Do not apply repellent to skin under your clothing.
- When weather permits, wear long-sleeved shirts and long pants whenever you are outdoors.
- Place mosquito netting over infant carriers when you are outdoors with infants.
- Consider staying indoors at dawn, dusk, and in the early evening, which are peak mosquito biting times.
- Install or repair window and door screens so that mosquitoes cannot get indoors.


Help reduce the number of mosquitoes in areas outdoors where you work or play, by draining sources of standing water. In this way, you reduce the number of places mosquitoes can lay their eggs and breed.

- At least once or twice a week, empty water from flower pots, pet food and water dishes, birdbaths, swimming pool covers, buckets, barrels, and cans.
- Check for clogged rain gutters and clean them out.
- Remove discarded tires, and other items that could collect water.
- Be sure to check for containers or trash in places that may be hard to see, such as under bushes or under your home.

Note: Vitamin B and "ultrasonic" devices are NOT effective in preventing mosquito bites.

Kids can learn how to protect themselves from mosquito bites on ["The Buzz-z-z-z on West Nile Virus"](#) (on BAM!, the CDC site for kids).

Q. What can be done to prevent outbreaks of West Nile virus?

A. Prevention and control of West Nile virus and other arboviral diseases is most effectively accomplished through integrated vector management programs. These programs should include surveillance for West Nile virus activity in mosquito vectors, birds, horses, other animals, and humans, and implementation of appropriate mosquito control measures to reduce mosquito populations when necessary. Additionally, when virus activity is detected in an area, residents should be alerted and advised to increase measures to reduce contact with mosquitoes. Details about effective prevention and control of West Nile virus can be found in [CDC's Guidelines for Surveillance, Prevention, and Control](#)  (286 KB, 111 pages).

Q. Is there a vaccine against West Nile encephalitis?

A. No, but several groups are working towards developing a vaccine.

Q. Where can I get information about the use of pesticide sprays that are being used for mosquito control?

A. The federal agency responsible for pesticide evaluation is the Environmental Protection Agency (EPA). [See the EPA Web site](#) for detailed answers to the questions about pesticides used for mosquito control.