
WEST NILE VIRUS

Overview

The West Nile virus (WNV) is most often spread to humans from the bite of an infected mosquito. The WNV normally cycles between mosquitoes and birds. However, people may also be infected if they are bitten by a WNV-infected mosquito. Most cases of WNV are probably not acquired in the workplace but there are some workers at risk of WNV infection. Outdoor workers are at risk of WNV infection from the bite of an infected mosquito. Although WNV is most often transmitted by the bite of infected mosquitoes, the virus can also be transmitted through contact with infected animals, their blood, or other tissue.

Frequently Asked Questions

When are outdoor workers at greatest risk of WNV exposure?

Outdoor workers are at risk of WNV exposure any time infected mosquitoes are biting. Most WNV infections occur from July through September. Many mosquitoes are most active from dusk to dawn. However, some are active during the day. If possible, avoid working outdoors during peak activity times for mosquitoes. When you must work at such times, pay special attention to the use of personal protection such as protective clothing and insect repellent to reduce the potential for exposure.

Where are mosquitoes most commonly found?

Mosquitoes develop in any standing body of water that persists for more than 4 days. Stagnant pools, ponds, watering troughs, irrigation ditches, rain barrels, manure lagoons, and other stagnant bodies of water increase mosquito populations. Weedy, bushy, and wooded work environments may also have mosquito populations. Emptying containers of stagnant water every 4 to 5 days or treating these breeding sites with larvicides can help to reduce mosquito populations.

What should I do if I develop symptoms of WNV infection?

Tell your supervisor about any symptoms that might be caused by WNV infection. If you develop severe symptoms such as high fever, stiff neck, disorientation, tremors, muscle weakness, or paralysis, seek medical attention immediately. Be sure to tell your health care provider that you work outdoors. The period between receiving the infected bite and having symptoms is 3 to 14 days.

Testing for WNV infection is available. No vaccine is currently available to prevent WNV infection in humans.

Recommendations for Workers

Outdoor workers can reduce their risk of WNV exposure by taking the following steps:

- Use insect repellent if you work outdoors when mosquitoes are biting:
 - Apply insect repellent containing DEET (more than 20% DEET for longer protection), picaridin, or oil of lemon eucalyptus to exposed skin and to clothing.
 - Use permethrin on clothing only.
 - Carefully follow label directions for repellent use.

- Do not apply pump or aerosol products directly to the face. Instead, spray these products onto the hands and carefully rub them over the face, avoiding the eyes and mouth.
- Use a repellent that provides protection for the amount of time that you will be outdoors and reapply it as needed. The percentage of active ingredient in the repellent determines the length of protection.
- Wash skin treated with insect repellent with soap and water after returning indoors.
- Use protective clothing if you work outdoors when mosquitoes are biting:
 - Wear long-sleeved shirts, long pants, and socks.
 - Spray clothing with products containing DEET, picaridin, oil of lemon eucalyptus, or permethrin, as mosquitoes may penetrate thin clothing.
 - Use permethrin repellents on clothing as directed; do not apply them directly to skin.
 - Wash clothing treated with insect repellent before wearing it again.
 - Do not apply repellent to skin that is covered by clothing.
- Avoid handling dead animals when possible. If you must handle them, take the following precautions:
 - Use tools such as shovels to avoid direct contact with the animals.
 - Wear medical examination gloves that provide a protective barrier between your skin and blood or other body fluids:
 - Wear two pairs of gloves if one pair alone might tear.
 - Wear the medical examination gloves as the inner pair.
 - Make sure that any latex gloves used are reduced-protein, powder-free gloves to reduce workers' exposure to allergy-causing proteins.
 - Wear cotton or leather work gloves as the outer pair when heavy work gloves are needed.
 - Discard both inner and outer gloves immediately after use.
 - Remember that cotton, leather, and other absorbent gloves are not protective when worn alone.
 - If gloves are not available, use a plastic bag, which may act as a protective barrier between the animal and your skin.

Content Source-National Institute for Occupational Safety and Health (NIOSH)) (Users of Safety Talk are advised to determine the suitability of the information as it applies to local situations and work practices and its conformance with applicable laws and regulations).