

OSHA Training Toolbox Talk: Biological Hazards – Avoiding Vector-borne Diseases

Reference: OSHA General Duty Clause / Centers for Disease Control & Prevention (CDC) Guideline]

A lot of attention of late has been directed towards preventing transmission of potentially infectious viruses and bacteria between humans; and rightfully so. However, we must also remain cautious of the risk of contracting a potentially infectious virus, bacterium, or parasite from a different source; insects.

Mosquitoes, ticks, and fleas are three insects that can potentially transmit infectious pathogens from one human to another, or in some cases from animals to humans. These insects, which are often referred to as vectors, usually feed by sucking the blood of a human or other mammal. If the host is carrying an infectious virus, bacteria, or parasite, it can later be transmitted to a new host after the pathogen has had time to replicate. Infectious diseases spread by vectors include, but are not limited to, West Nile Disease, Zika, Encephalitis, Malaria, Lyme Disease, Rocky Mountain Fever, and the Plague. Once a vector becomes infectious, they are capable of transmitting the disease-causing pathogen for the rest of their life during subsequent bites.

Strategies to help prevent getting bitten by these vectors include, but are not limited to:

- **Cover Exposed Skin When Outdoors.** Wear light-colored, long-sleeved shirts and long pants tucked into socks or boots. For an extra layer of protection, wear clothing treated with a chemical called Permethrin, which has proven effective as a repellent against biting insects.
- **Apply Insect Repellents to Exposed Skin When Outdoors.** Some of the most effective insect repellents for use by adults contain an EPA-approved chemical called DEET. Another effective chemical repellent approved by the EPA for adult use is Picaridin, also known as Icaridin outside of the United States. Of course, you should always follow the product label instructions for use and application, and reapply insect repellent as directed. Also remember if you are also using sunscreen, apply sunscreen first and insect repellent second.
- **Vaccinate Against Specific Infectious Agents.** If you are travelling to a foreign country, especially one located in the sub-tropics, check ahead of time with your physician to see what vaccinations are available for vector-borne diseases prevalent in the area. Some may be recommended, or even required, before you enter certain countries.
- **Practice Preventive Maintenance.** Simple things such as repairing or replacing loose-fitting or torn window screens can prevent insects from entering into building structures. Also, seek out and drain sources of standing water, as they harbor mosquito larvae. Keep grass and weeds cut to prevent an attractive habitat for ticks. And after walking through wooded or thickly vegetated areas, take a shower and then inspect for ticks that may have attached themselves to your skin.

By following these simple precautions at home and at work, where applicable, we are helping to prevent insect bites that carry the potential to transmit a potentially deadly infectious disease.

Are there any questions about today's toolbox talk on avoiding vector-borne diseases? Thank you for participating in this toolbox talk. Please be sure to sign the training certification form to get credit for attending today's training session.

