

## Eastern Equine Encephalitis (EEE)

EEE virus is an alphavirus, enzootic in many perching song birds found in fresh-water swamp habitats. The virus is transmitted among wild birds in these areas primarily by *Culiseta melanura*, a mosquito that feeds almost exclusively on birds. EEE virus has a cycle of natural infection among bird populations with occasional, incidental infections of humans, non-human mammals (most often horses) and other larger birds. Infected mammals do not serve to spread the virus. *Risk of infection in humans is a function of exposure to infectious human-biting mosquitoes.* These “bridge vectors” (mosquito species that are indiscriminant and will feed on birds or humans) are responsible to transferring EEE virus to humans. In 2005, 7 human cases were reported in New Hampshire, resulting in 2 deaths. In 2005, 54 birds, 9 horses, and 15 mosquito pools tested positive for EEE.

## West Nile Virus (WNV)

West Nile Virus (WNV) is a flavivirus. Similar to EEE, WNV is also maintained in an environment that involves birds, with indiscriminant feeding mosquitoes infecting humans and other mammals. WNV is known to result in the death of certain species of birds, especially crows and blue jays. WNV causes sporadic disease in humans, and occasionally results in significant outbreaks. WNV was first identified in New Hampshire in 2000, with 7 birds testing positive. In 2005, 46 birds tested positive.

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# TOWN OF GREENLAND NEW HAMPSHIRE

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*Reducing the Risk to  
Greenland Residents during  
the 2006 Mosquito Season*



## WHAT ARE WE DOING?

The public health threat posed by arbovirus illness is real. The Town of Greenland is continuing its mosquito control program with larvacide treatment of the mosquito breeding areas with Bti and is working closely with Municipal Pest Management Services, Inc. Killing mosquito larvae can be very effective and has minimal environmental risk. Bti kills mosquito larva (or black fly larva in streams), but does not harm fish, mammals, or other insects. Education efforts are underway to help residents reduce the risk of infection and minimize opportunities for certain mosquitoes to breed.

Individuals can take a number of simple steps that will greatly reduce the risk of mosquito-borne viruses to them, their families, and their communities.

### What can residents do around their homes to help reduce exposure to mosquitoes.

1. Make sure that doors and windows have tight-fitting screens.
2. Remove all discarded tires from your property. The used tire has become the most important domestic mosquito-breeding habitat in the U.S.
3. Eliminate allow water-holding containers. Do not overlook containers

that have become overgrown by aquatic vegetation.

4. Make sure roof gutters drain properly.
5. Clean and chlorinate swimming pools and outdoor hot tubs.
6. Aerate ornamental pools or stock them with fish.
7. Turn over wheelbarrows and change water in birdbaths at least twice weekly.
8. Eliminate any standing water that collects on your property. Mosquitoes will develop in any puddle that lasts more than 4 days. Mosquito larvae look like tiny shrimp!
9. Although putting up houses for birds or bats might help, these techniques have never been proven to reduce mosquito numbers. Bats eat whatever insects are abundant and the correct size for them and do not knock down the mosquito population far enough to help humans.
10. Drill holes in the bottom of recycling containers that are left out of doors.
11. Dispose of plastic containers or ceramic pots under plants designed to hold extra water—they collect enough water for mosquitoes to breed in.
12. Drain water from pool covers.
13. Remind or help neighbors to eliminate breeding sites on their properties.

### What can residents do to reduce their risk of becoming infected with WNV or EEE?

When mosquitoes are active, take the following precautions:

1. Wear protective clothing such as long pants, long-sleeved shirts, and socks if outside during evening, nighttime, and dawn hours when mosquitoes are most active.
2. If outside whenever mosquitoes are active, consider the use of an effective insect repellent containing DEET. No more than 30% DEET should be used on adults or children. DEET should not be used on infants less than 2 months old. Repellents containing Picaridin or oil of lemon eucalyptus provides similar protection as low concentrations of DEET.
3. Vitamin B, ultrasonic devices and bug zappers have not been shown to be effective in preventing mosquito bites.
4. Avoid lawn or garden work during the early evening or dawn hours.