

Eastern Equine Encephalitis (EEE)

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Status of EEE in Concord

On 9/20/05, a critically-ill horse that was stabled in northeastern Concord was euthanized, tested, and found positive for the Eastern Equine Encephalitis virus (EEE). The horse had not been vaccinated against the virus.

The horse that tested positive is the first case of EEE in the Concord area to date. The East Middlesex Mosquito Control Project (EMMCP) collects and tests mosquitos for the virus, and EEE was not found in any of the mosquitos collected from 2 sites in Concord on 9/13, from 3 sites in Lincoln on 9/13, or from 3 sites in Bedford on 9/14. EMMCP has also been testing mosquitos every 2 weeks from swamps in Bedford and Sudbury throughout the summer and no samples from these sites have tested positive for EEE.

The Massachusetts Department of Public Health (MDPH) and EMMCP are collecting additional mosquitos from 3 sites in Concord this week, including where the horse was stabled. These mosquitos will be tested for EEE.

EEE has not been reported in any Concord residents. Statewide a total of four residents, all from Plymouth County, have contracted the disease.

The horse that tested positive in Concord on 9/20 was the fourth horse found in Massachusetts this summer. The other three horses were found in Haverhill on 8/8, Wrentham on 8/24, and Merrimac on 9/4. Concord has 189 horses, 27 ponies, and 1 donkey.

What is EEE?

Mosquito-borne viruses are viruses that are carried and spread by mosquitos. In this part of the country, public health surveillance is done for two mosquito-borne viruses that can cause encephalitis (swelling of the brain) - West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE). The period of highest risk of getting either disease is from late July through the fall (until the first hard frost).

Mosquitos get WNV and EEE by biting infected birds. People and animals can get these diseases by being bitten by an infected mosquito. There is no evidence that a person can get these viruses from handling live or dead infected birds or animals. However, we advise that gloves should be worn when handling any dead animals and use double plastic bags to discard dead animals in the trash.

Most people bitten by mosquitos carrying WNV will experience no symptoms or very mild symptoms and will recover on their own. Persons over 50 years of age have the highest risk of severe WNV disease. People who are bitten by mosquitos carrying EEE tend to experience more severe symptoms. Severe symptoms of both diseases include high fever, muscle weakness, headache, disorientation, neck stiffness, paralysis, coma, tremors, convulsions and sometimes death. There is currently no vaccine or medical cure for these illnesses. In severe cases intensive medical therapy such as intravenous (IV) fluids and nutrition, and ventilator support can be administered in hospitals.

What is the Town Doing?

Concord's mosquito control program began in 2002, and has provided services such as: testing birds for WNV, testing mosquito pools for EEE and WNV, and placing larvacide in catchbasins to control mosquitos in residential areas. Concord's current program does not include spraying pesticides from the ground or the air to kill adult mosquitos, or applying larvacides to wetlands.

Short-Term Action Plan

The Concord Health Division will not recommend that pesticides be sprayed from trucks or helicopters, because it is so late in the season; EMMCP and MDPH agree that spraying will not be effective.

The Concord Health Division will:

- Advise residents to take the personal protective measures discussed in this flyer and continue to do so until the first hard frost.
- Direct EMMCP to monitor mosquito counts until the first frost.
- Mail information about EEE to all stable owners in Town.
- Mail this flyer to all homes located within one mile of the barn where the horse with EEE was stabled.
- Post updates on the Town website at <http://www.concordnet.org/>.

Long-Term Action Plan

The Board of Health will:

- Review the Town's current mosquito control program at its next meeting on 10/18.
- Draft recommendations for the Town's 2006 mosquito control program.
- Forward recommendations to the Board of Selectmen and Town Manager.

What Can You Do?

Mosquitos are still actively biting and will continue to bite until the first hard frost. Although mosquito population numbers are down, the remaining ones are more likely to be infected since the number of infected mosquitos increases over the season. Until that first frost occurs, residents are advised to take the following simple and effective prevention steps to reduce the chance of becoming infected with EEE:

• Avoid Mosquito Bites

Residents should be aware that mosquitoes are active between dusk and dawn; during cloudy humid days; and, in damp, shady areas. Take extra care to use repellent and protective clothing, especially during the evening and early morning hours. Consider avoiding outdoor activities during these times. When possible, wear long-sleeve shirts, long pants and socks when outdoors. Apply insect repellent when outdoors. The most effective repellents contain DEET (N, N-diethyl-m-toluamide), Picaridin (KBR 3023) or Permethrin. Always follow the instructions on the product label.

• Mosquito-Proof Your Home

Keep mosquitos out of your home by having well-fitting screens on both windows and doors. Drain standing water because mosquitos lay their eggs there. Limit the number of places around your home for mosquitos to breed by either draining or getting rid of items that hold water. These can include: rain gutters; drains; empty flowerpots; wading pools, and birdbaths.

• Learn More About EEE

Up-to-date information about EEE and WNV in Massachusetts is available on the MDPH web site at <http://westnile.ashtonweb.com/>