



The Commonwealth of Massachusetts
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MEMORANDUM

TO: Local Boards of Health

FROM: John Auerbach, Commissioner of Public Health

DATE: August 30, 2007

SUBJECT: School Activities and the Risk of Mosquito-Borne Diseases

Despite cooler temperatures, mosquito activity continues throughout the late summer and into fall. This activity brings the continued risk of mosquito-borne diseases such as West Nile virus (WNV) infection and eastern equine encephalitis (EEE). Between 2000 and 2006, there were 54 human cases of WNV locally acquired in Massachusetts, including six fatalities. Outbreaks of EEE usually occur in Massachusetts every 10-20 years. These outbreaks will typically last two to three years. The most recent outbreak of EEE in Massachusetts began in 2004 and included 13 cases with six fatalities through 2006.

Participation in outdoor activities at any time of day increases exposure to mosquitoes. Students participate in many sports and recreational activities during the evening when many kinds of mosquitoes are most actively biting. In addition, physical exertion and sweating can attract mosquitoes and may decrease the time that repellents are effective.

This year, some areas of Massachusetts are experiencing elevated levels of mosquito-borne virus activity. We are encouraging you to contact the schools in your area to work with them to increase awareness in the students about the risk from mosquito-borne disease and encourage the use of personal protective measures including wearing protective clothing and using mosquito repellents.

We encourage you to share with them the latest up-to-date information about the circulation of these viruses, the risk of transmission in your specific area, and the steps the school could take to reduce the risk of infection in students, including rescheduling certain activities for times of day with less mosquito activity.

- **Be Aware of Peak Mosquito Hours.** The hours from dusk to dawn are peak biting times for many mosquitoes. Consider rescheduling outdoor activities that occur during evening or early morning. Otherwise, take extra care to use repellent and protective clothing.
- **Clothing Can Help** reduce mosquito bites. Although it may be difficult to do when it's hot, wearing long-sleeves, long pants and socks when outdoors will help keep mosquitoes away from your skin.
- **Apply Insect Repellent** when you go outdoors. Use a repellent with **DEET** (N, N-diethyl-m-toluamide), **permethrin**, **picaridin** (KBR 3023), or **oil of lemon eucalyptus** [p-methane 3, 8-diol (PMD)] according to the instructions on the product label. DEET products should not be used on infants under two months of age and should be used in concentrations of 30% or less on older children. Oil of lemon eucalyptus should not be used on children under three years of age. Permethrin products are intended for use on items such as clothing, shoes, bed nets and camping gear and should not be applied to skin.

More information on mosquito-borne diseases, on protecting yourself from bites by mosquitoes and on safe application of mosquito repellents can also be obtained by visiting the MDPH web site on arboviral (mosquito-transmitted) diseases <http://www.mass.gov/dph/wnv/wnv1.htm>.

The Massachusetts Department of Public Health (MDPH) will be sending out a packet of information to school nurses which contains information on preventing both tick- and mosquito-borne diseases. It will include a recreational risk advisory, tick removal instruction sheet, suggestions for vector-borne disease prevention during field trips, and a sample notification letter to parents whose children have had a tick attached to them. These documents will also be available to you next week on the MDPH web site at <http://www.mass.gov/dph/wnv/wnv1.htm> and <http://www.mass.gov/dph/cdc/epii/lyme/lymehp.htm>.