

**TOWN OF HARVARD  
BOARD OF HEALTH**

**EEE INFORMATION SHEET**

*This document outlines key information on EEE.*

**EEE facts:**

- Rare: an average of 7 human cases of EEE are reported annually in the Eastern US (2015: 6; 2016: 7; 2017: 5; 2018: 6; 2019: 6 in MA)
- Occurs primarily in the late summer or early fall, until the first hard frost
- Persons over age 50 and under age 15 are at greatest risk
- Only about 4-5% of human EEE exposures result in EEE virus
- About 40% of human cases succumb; others have permanent neurologic damage (DPH)
- Currently no human vaccine is available

**Mosquito facts:**

- 200 different species in the US, 3,500 worldwide, 4 implicated in EEE transmission
- Lifespan: Females: 42-56 days, Males: 10 days (females bite to produce offspring)
- Range: Most species: 1-3 miles, some as little as 300 feet
- Approximately 18% of species bite humans (female mosquitos only)

**Risk levels & Status:**

State defines 5 risk levels and recommendations for each level

<https://www.mass.gov/info-details/massachusetts-arbovirus-update#eee-risk-map->

- **Status:** As of 8/1/20, Harvard is at **low**, 2 on a scale of 1-5
- **Projection:** EEE likely to continue until first hard frost, defined as, 2 hours below 28° or 3 hours below 32° F (DPH 2020 surveillance plan)
- **Updates:** Weekly updates are posted to [www.mass.gov/info-details/massachusetts-arbovirus-update](https://www.mass.gov/info-details/massachusetts-arbovirus-update). The BoH receives these updates.

**What You Can Do About EEE:**

**1) Personal Protection**

- Wear an effective repellent when outside between dusk and dawn
- Wear long sleeves, long pants, & socks when outside from dusk to dawn
- Avoid outside areas with obvious mosquito activity
- Repair screens, remove standing water
- Effective repellents per CDC:
  1. DEET
  2. Picaridin
  3. Oil of Lemon Eucalyptus
  4. IR<sub>3535</sub>

**2) Seek medical attention for the following symptoms:**

- High Fever 103- 106° F
- Stiff neck
- Headache
- Lack of energy
- Symptoms can appear 3 – 10 days after an infected mosquito bit
- Symptoms can mimic infection with influenza virus and appear as a typical ‘flu’
- Infection can progress rapidly, developing into coma within a week
- Inform your physician that you live in an area known to have EEE positive mosquitoes

## **State & Local-Level Interventions:**

### **1) Reduce population of larval or immature mosquitoes:**

- Remove standing water
- Use BTI (Bacillus Thuringiensis Isrealensis), approved for use in organic farming

### **2) Reduce population of adult mosquitoes:**

- **Aerial Spraying:** Only available to State entities. Mass. DPH initiates spraying in areas deemed ‘critical’

3 exemptions allowed:

- Open drinking water sources
- Endangered species habitats
- Commercial organic farms
- **Roadside Spraying:** Roadside spray reaches about 300’ from road.
  - Truck based. In non-emergency, allows homeowners to opt out
- **Insecticide used for both is Anvil® 10+10:** It kills current adult mosquitoes, and reduces breeding in next cycle; it is not effective on eggs and larvae. Both types done at night. Anvil® 10+10 is safe for humans and pets.

## **Communication & Education:**

- **Personal protection is the basis of all interventions**
- Drain standing water:
  - Children’s toys
  - Wading pools
  - Buckets
  - Trash containers
  - Tires
  - Flower pots
  - Tarps
  - Bird baths
  - Anything that can collect water

## **Resources:**

**Please contact the Harvard Board of Health with any questions.**

- Harvard Board of Health
  - [www.harvard.ma.us/board-health](http://www.harvard.ma.us/board-health)
  - 978-456-4100 x 328
- Mass. Department of Public Health, Dept. of Epidemiology
  - 617-983-6800
  - <https://www.mass.gov/mosquito-borne-diseases>
  - [www.mass.gov/info-details/massachusetts-arbovirus-update](http://www.mass.gov/info-details/massachusetts-arbovirus-update)
- Nashoba Associated Boards of Health
  - 978-772-3335
  - [www.nashoba.org](http://www.nashoba.org)
- Centers for Disease Control
  - [www.cdc.gov/easternequineencephalitis/index.html](http://www.cdc.gov/easternequineencephalitis/index.html)
- U.S. Environmental Protection Agency
  - <https://www.epa.gov/safepestcontrol>
- Mass. Department of Agricultural Resources
  - <https://www.mass.gov/forms/how-to-request-to-be-notified-of-an-aerial-spray-or-wide-area-emergency-operation-conducted>