

## **Mosquito Attack!**

As you are undoubtedly aware, RI communities are threatened every summer and fall with the rare, but serious Eastern Equine Encephalitis (EEE or 'Triple-E') and West Nile Virus. Wet summers produce more mosquitoes than normal, so there are more infected bugs detected when health officials take samples.

EEE and West Nile Virus are serious but very rare illnesses caused by viruses carried by a species of swamp breeding mosquito which can acquire the virus by feeding on the blood of infected wild birds. In most years, the virus is limited to these birds and bird-biting mosquitoes, but occasionally the virus can be passed on to other mosquito species known to bite humans and horses. EEE and West Nile viruses can affect the brain. The symptoms can include sudden onset of high fever, headache, stiff neck, confusion, and decreased consciousness.

Although the real risk is minimal for contracting these diseases we must respect the threat by taking due care to lessen any exposure. We suggest the following measures:

- All kids should be wearing long pants and long sleeves and a baseball cap if practical when mosquito activity is high (usually at sunset).
- Insect repellent application should be used prior to extended periods outside. Such repellents must contain enough DEET to be truly effective, which is found in Deep Woods Off, Cutter Outdoorsman and other major brands. Many authorities recommend against high concentrations of DEET for younger children, but if low concentrations aren't effective in your child's case, you have to choose between which is the greater threat. Apply a small amount of the repellent to the back of the neck, both wrists and both ankles. Do not put the repellent on the face or any area where these chemicals could be breathed in any significant amount.
- If mosquitoes continue to bother your children, consider moving the activity indoors if possible. Avoid unnecessary activity in swampland areas, particularly in towns known to harbor mosquitoes with the EEE or West Nile virus.
- Mosquitoes have carbon dioxide (CO<sub>2</sub>) chemoreceptors and are attracted by exhaled CO<sub>2</sub> to their victims. These bugs also have infrared receptors and can be attracted by heat given off by the body, especially the head. Wearing a baseball cap (Red Sox, of course) helps diffuse the CO<sub>2</sub> and infrared signals given off by the body. And since exercise increases the body's output of both CO<sub>2</sub> and heat, avoiding heavy exercise at dusk will also help. In other words, doing all these things makes your child stealthy and invisible to the little buggers.
- Once the first hard frost occurs in October we can usually count on all of the mosquitoes being killed off. Ticks can survive in colder temps...but that's a different set of diseases and another story.
- There are other worrisome diseases caused by mosquitoes in tropical climates such as Caribbean islands. Zika, Dengue, Malaria and Yellow Fever are all a problems that need separate discussions, so if you travel to these areas please discuss it with us.