West Nile Virus Threat Peaks in Late July

Illinois Poison Center experts urge caution when using DEET-containing repellents

Humans are at greater risk of contracting West Nile Virus during the peak mosquito season of mid to late July in Illinois, according to experts from the Illinois Poison Center (IPC). The IPC urges residents to be mindful of the disease but also take precautions when applying DEET-based repellents.

“The danger of West Nile Virus, and other mosquito-borne diseases, far outweighs the minimal risk of using products with the active ingredient DEET,” said Michael Wahl, MD, administrative medical director of the IPC. “However, people still need to exercise caution when using insect repellents containing DEET.”

In 2002, staff at the IPC handled more than 400 calls from health professionals and the public related to insect repellents. Repeated use of DEET products has resulted in relatively few reports of adverse reactions; however, there have been isolated but serious cases of toxicity, which rarely has been linked to seizures. Recent studies have led to new recommendations from the American Academy of Pediatrics as well as the IPC for the use of DEET-containing products.

“In the past, the IPC has recommended using insect repellents with a lower concentration of DEET on young children,” said Wahl. “However, the IPC has changed its recommendations in light of the latest studies. It is now acceptable to use higher concentrations of up to 30 percent DEET for adults and children as young as two months old.”

Higher concentrations of DEET do not necessarily provide more protection, but instead provide longer periods of protection. For example, a product containing a 5 percent concentration of DEET will afford about 90 minutes of protection from mosquito bites, and a repellent with a 24 percent DEET concentration will provide approximately five to six hours of protection. For families concerned about the potential risks of DEET, products with lower concentrations (10 to 15 percent) can still be used on children if the time spent outdoors is less than a couple of hours and if the location causes little or no concern about the transmission of malaria or other kinds of viral encephalitis, such as West Nile Virus.
To ensure that products containing DEET are used safely, the IPC joins the American Academy of Pediatrics and the Environmental Protection Agency in the following recommendations:

**Choosing an Insect Repellent**
- Read and follow all directions and precautions on the product label.
- Verify that the repellent is EPA-approved. It should say so on the label.

**Applying Repellent**
- Use just enough repellent to lightly cover skin. Be careful not to saturate skin.
- Repellents should be applied only to exposed skin or clothing or both. Do not apply repellents underneath clothing.
- To apply a repellent to face, dispense it into palms, rub hands together and apply a thin layer to face.
- Do not apply a repellent to children’s hands. Children are likely to put their hands in their mouths.
- After applying, wipe or wash the repellent from palms to prevent inadvertent contact with eyes, mouth or genitals.

**Too Much DEET: Side Effects**
- DEET toxicity has been seen with chronic repeated applications, and has been associated with neurological symptoms, such as coma, seizures, movement disorders and various diseases of the brain. These reported side effects are very rare (only 14 cases reported over 40 years of use).

For a free, complete list of DEET-related safety tips, Illinois residents can contact the IPC at 1-800-222-1222 (press option two) or click here.

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