



COUNTY OF ORANGE HEALTH CARE AGENCY

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PUBLIC HEALTH EPIDEMIOLOGY & ASSESSMENT

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WNV PREVENTION

Avoid mosquito bites by:

- Eliminating standing water around your home and neighborhood
- Using an effective insect repellent - (see below) while outside
- Maintaining intact, tight-fitting screens on all windows and doors.

Additional protection from mosquitoes can be provided by:

- Avoiding outdoor activity at dawn, sunset and for 2 hours following sunset
- Wearing long pants and long sleeved-shirts when possible while outside.

Insect Repellent

An effective repellent will contain DEET (N,N-diethyl-meta-toluamide also known as N,N-diethyl-3-methylbenzamide) or picaridin (KBR 3023). Oil of lemon eucalyptus [p-menthane 3,8 diol (PMD)] may provide similar protection to repellents with low concentrations of DEET.

- The protection time increases with the concentration of DEET, up to a concentration of 50%. However, a repellent containing 30% DEET or less should be effective in adults for most situations. Use a higher-percentage product if you will be outdoors for several hours, or if you will be sweating, physically active, or getting wet. For longer protection without using a high concentration product, apply a microencapsulated formula ("time release" or "controlled release"). You can also use a lower-percentage product and then reapply it if you are outdoors longer than the protection time.

Do not apply repellent to skin under clothing. If repellent is applied to clothing, wash treated clothing before wearing again. However, clothing, shoes, bed nets, and camping gear may be treated with products containing permethrin.

Use of Insect Repellents in Children

- Repellents may irritate the eyes and mouth, so avoid applying repellent to the hands of children. When using insect repellent on children, apply sparingly to exposed skin. Apply it to your own hands and then rub them on your child. Avoid children's eyes and mouth and use it sparingly around their ears.
- The American Academy of Pediatrics (AAP) stated that 30% DEET is as safe as 10% DEET when used according to the directions on the product label (see <http://www.aap.org/family/wnv-jun03.htm>). DEET is not recommended for use on children under 2 months of age.
- Picaridin and oil of lemon eucalyptus products can also be used on children; however, oil of lemon eucalyptus should not be used on children under 3 years of age.
- Keep all repellents out of reach of children.

Whenever you use an insect repellent, be sure to read and follow the manufacturer's DIRECTIONS FOR USE, as printed on the product.

For more information on the use of insect repellents:

Centers for Disease Control and Prevention (CDC):

<http://www.cdc.gov/ncidod/dvbid/westnile/RepellentUpdates.htm>

California Department of Pesticide Regulation: <http://www.cdpr.ca.gov/docs/factshts/repellents.pdf>

American Academy of Pediatrics: <http://www.aap.org/family/wnv-jun03.htm>

National Pesticide Information Center: 1-800-858-7378 or <http://npic.orst.edu/>

Additional resources:

Orange County Health Care Agency: <http://www.ochealthinfo.com/epi/wnv/index.htm>

California Department of Health Services: <http://www.westnile.ca.gov>

Centers for Disease Control and Prevention (CDC): <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>