



## **Keeping Bugs at Bay**

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Summer is when many of us go outdoors to walk, hike, picnic, garden, or camp. Unfortunately, mosquitoes, ticks, and other insects may interfere with our enjoyment of these activities.

Biting insects such as mosquitoes and ticks can be a nuisance, but they can also cause disease. Mosquito bites can transmit West Nile and other viruses. Ticks can carry Lyme Disease (although rare in western Washington) through direct exposure or by contact with a pet. Simple actions to prevent bug bites are the best way to prevent the need for an arsenal of repellents.

**Don't help bugs breed.** Reduce standing water near your home. Drain stagnant water in tires, buckets, flowerpots, and toys. Change the water in birdbaths and kids' pools at least twice a week. Unclog the gutters on your home and fix leaky outdoor faucets and sprinklers.

**Avoid mosquito bites** by making sure doors and windows keep bugs out of your home. When possible, stay indoors at dawn and dusk when mosquitoes are most active. Wear light-colored clothing that protects skin, such as long pants, long-sleeve shirts, and hats. Avoid using strong fragrances that attract insects. Use insect repellent when necessary; a variety is available including skin-applied or clip-on.

**Synthetic chemical insect repellents** that have been extensively tested for effectiveness and general safety include:

- *DEET* (Diethyl Toluamide) is the active ingredient in many insect repellents. The American Academy of Pediatrics recommends not using DEET on children under the age of 2 months and suggests only one application per day of the lowest concentration necessary to achieve results.
- *Picaridin* (also known as KBR 3023) has a more pleasant smell than DEET, and reportedly causes less damage to plastics and fabrics.

**Plant-based insect repellents** commonly available:

- *Citronella oil* has long been used as an insect repellent; however, it evaporates quickly so its effectiveness is more limited.
- *Oil of lemon eucalyptus* is a recently approved plant-based insect repellent. The synthesized version is known as PMD. Studies show it to be very effective in repelling mosquitoes and ticks. It should not be used on children younger than three years old.

It is important to note that “natural” and “plant-based” do not necessarily mean that the product is completely safe. Many plant-based products are still potent chemicals; few have been extensively studied; and some can cause skin irritation or other health effects to some users.

**Guidelines:** Always follow label directions, apply the minimum amount needed, and do not apply on open cuts, or near the mouth or eyes. Avoid products combining sunscreen and repellent, because sunscreen needs to be re-applied resulting in too much repellent being used. Help children apply repellent; do not apply to their hands as children tend to put hands in their mouths. Keep out of reach when not in use. Wash hands or shower following the use of insect repellent. Bathe pets and wash pet bedding frequently to reduce the number of insects they contribute to the household.

- **For more information** about keeping bugs at bay, including mosquito repellent tips, see our website: [www.co.thurston.wa.us/health/ehwnv/prevent.html](http://www.co.thurston.wa.us/health/ehwnv/prevent.html) or call 360-867-2674, (TDD line 360-867-2603).

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Dr. Diana Yu is the Health Officer for the  
Thurston County Public Health and Social Services Department  
[www.co.thurston.wa.us/health](http://www.co.thurston.wa.us/health)  
360-867-2500