



## Mecklenburg County Health Department

### Mosquitoes and Insect repellents

Every year, child care providers prepare for the rigors of summer and no subject likely gets more attention than mosquitoes and insect repellents, especially with the concern for West Nile virus. Some basic facts and tips can make your children's summer experience a pleasant one.

**Mosquitoes** bite animals to take a blood meal, allowing them to develop their eggs, while many other summer stinging/biting pests do so as a defensive reaction. Mosquitoes need 7-14 days growing in standing water, sometimes as little as a ¼ cup, to go from egg to biting adult. Generally, if you have mosquitoes, standing water is nearby and has been there at least 7-14 days. Some mosquitoes will only bite birds while others will bite about any animal, including people. The West Nile virus (WNV), for example, is actually a natural disease of birds; however, sometimes, the mosquito which bites an infected bird will turn around and bite a human. Fortunately, only about 1 in 150 people bitten by an WNV-infected mosquito actually become ill with the disease.

**Controlling** mosquitoes or mosquito bites requires a 2 step approach. You must affect or change both human and mosquito behavior. How can you change the mosquito's behavior? By locating the standing water areas causing them in the first place and treating or eliminating them as breeding sources. Sources may exist on a child care property or adjacent to it...as flying insects, mosquitoes don't respect property lines. **Survey** all outside areas for any 'container' source such as stopped-up gutters, toys or playground equipment holding water after a rain, trashcans, or buckets. If a ditch or other storm water feature is nearby, look to see if water is flowing or standing in it.

Changing people's behavior can be accomplished by not going out when mosquitoes are most active, by ensuring outside openings are screened, and by using **insect repellents, where desired**. Most repellents today have an active ingredient called **DEET** in them, with varying degrees of concentration. Although there use is permitted in child care settings, several precautions exist for their use.

Key rules to follow in applying any insect repellent to children include:

- Read and follow all label directions on any product
- Always ensure child's MD has approved product used
- Always have provider to apply, not children
- Wash hands before and after applying, even when using gloves
- If using DEET, apply concentrations 10-15% or less
- Do not apply under clothing, over cuts/wounds, around food, or to children's hands, mouth, or eyes
- Wash each child's hands once coming indoor

Sources: U.S. EPA "How to Use Insect Repellents Safely", American Academy of Pediatrics

7/2/10

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