**ABOUT MOSQUITOES by Gerald Ente, MD June 2, 2025**

You may not realize it, but **mosquitoes are the deadliest animal** in the world (by the CDC + the Gates Foundation). The adult female mosquito needs the protein from a blood source to produce her eggs. Mosquitoes **spread all sorts of diseases** around the world, transmitting malaria, dengue, yellow fever, Zika virus, chikungunya virus, West Nile virus and several forms of Encephalitis. These mosquito-borne diseases cause an estimated **725,000 deaths** globally from about **700 million cases of illness** each year. So, although it can be serious, the “bite” **usually** is just an itchy annoyance.

**Male mosquitoes do not “bite**” because they are missing the stylet needed to puncture the skin and they seem not to be interested in blood meals. So now we speak only of the **female mosquito,** which has a variety of methods to find her prey, including visual, heat and chemical sensors. She finds a capillary close to our skin, pierces our skin with her stylet, injects some saliva, and withdraws her blood meal to get the protein for egg production. Her saliva contains an amazing number of chemicals, including anticoagulants (to prevent clotting), pathogens (viruses, bacteria + parasites which may cause disease) and an analgesic (to prevent the person from feeling the “bite”).

Most mosquitoes feed at **dawn and dusk**, although there are many exceptions, such as the Asian Tiger mosquito which is common in Florida. Most mosquitoes can fly only 100 - 200 yards. They can breed in any area of **standing water** as small as a bottle cap. Some species can live well indoors as well as outdoors. Males usually live only a week, while females typically can live for a few weeks to two months under ideal circumstances.

**What can we do to prevent mosquito “bites”**:

#1 Avoid unnecessary trips to areas where they are rampant.

#2 Wear long sleeve shirts + long pants as protection.

#3 Avoid outdoors whenever possible around dawn or dusk.

#4 Use EPA recommended repellents as directed on the label.

#5 Use mosquito netting where possible (for babies).

#6 Clean up standing water on your property from such areas as bird baths, old tires, flowers pots + saucers, puddles, clogged gutters + bottle caps because they are nurseries for mosquito larvae.

 #7 Use water treatment tablets when you can’t empty them.

#8 Avoid using lotions or perfumes with floral or sweet scents as mosquitoes are drawn to them (body odor too).

 #9 Use citronella candles (although expensive) + fans

#10 Rid your lawn of weeds + high grass that attract them.

#11 Use DEET or permethrin mosquito spray.

According to Consumer Reports the 3 best sprays are:

#1 *Ben’s 30% DEET Tic and Insect Wilderness Formula* (safe for pregnant women + children).

 #2 *Sawyer Picardin* (not safe for children under 3 years old).

#3 *Repel Lemon Eucalyptus* (not safe for kids under 3). Babies under two-months-old should not have any of these sprays used on them. Remember to apply insect spray after applying sunscreen and wash both off with soap + water when returning indoors.

**This coming summer season (2025) is expected to see intense swarms of mosquitoes in the New York City area**. Mosquito season usually starts at the end of May + heavy mosquito activity has already been reported.

Orkin has labelled New York as a **“Mosquito Hotspot**”. Based on their studies from April 2024 to March 2925, Orkin predicts that New York “will have the third hardest time dealing with these blood-sucking insects this year.” According to Orkin, Los Angeles will be the worst; Chicago is second; Atlanta and Detroit round out the top five hotspots.

Like the Boy Scouts say, **BE PREPARED.**

Have a great summer,
Gerald Ente, MD, Honorary Association Surgeon