

Mosquito FAQs

How fast can mosquitoes fly?

Depending upon the species, mosquitoes can fly at about 1 to 1.5 miles per hour.

How far can mosquitoes fly?

Mosquito species preferring to breed around the house, like the Asian Tiger Mosquito, have limited flight ranges of about 300 feet. Most species have flight ranges of 1-3 miles. The undisputed champions, though, are the saltmarsh breeders - having been known to migrate up to 100 miles in exceptional circumstances, although 20 to 40 miles are much more common when hosts are scarce. When caught up in updrafts that direct them into winds high above the ground, mosquitoes can be carried great distances.

How much do they weigh?

Smaller species found around houses commonly weigh about 2.5 milligrams. Our largest species weigh in at a whopping 10 milligrams!

How much blood does a mosquito take in a meal?

When feeding to repletion, mosquitoes imbibe anywhere from 0.001 to 0.01 milliliter.

Why do mosquitoes feed on blood?

Female mosquitoes imbibe blood so that their eggs can mature prior to laying. It serves no nourishment function. Males do not take blood meals at all. In order to obtain energy, both male and female mosquitoes feed upon plant nectars - much in the same manner as honeybees.

How long do mosquitoes live?

Lifespan vary by species. Most adult female mosquitoes live 2-3 weeks. Some species that over-winter in garages, culverts and attics can live as long as 6 months.

How high do mosquitoes fly?

In general, mosquitoes that bite humans prefer to fly at heights of less than 25 ft. Asian Tiger Mosquitoes have been found breeding in treeholes over 40 feet above ground. In Singapore, they have been found in apartments 21 stories above ground. Mosquitoes have been found breeding up to 8,000 feet in the Himalayas and 2000 feet underground in mines in India.

Can mosquitoes transmit AIDS?

Many studies have been conducted on this issue in the United States and abroad. To our knowledge, there has never been a successful transfer of the virus from an infected source to another host by blood-feeding insects under experimental conditions. The experts have concluded that the insects are not capable of such transmission. Many biological reasons would lead one to this same conclusion, but the extensive experimental studies are the most powerful evidence for the conclusion.

1. **HIV DOES NOT** replicate in mosquitoes. Thus, mosquitoes cannot be biological vectors as they are for malaria, yellow fever, or dengue. In fact, mosquitoes digest the virus that causes AIDS.
2. There is no possibility of mechanical transmission (i.e., flying contaminated syringes); even though we all know that HIV can be transmitted by dirty needles. However, the amount of "blood" on a mosquitoes' mouth parts is tiny compared to what is found on a "dirty" needle. Thus, the risk is proportionally smaller. Calculations based on the mechanical transmission of anthrax and Rift Valley fever virus, both of which produce very high titers in blood, unlike HIV, showed that it would take about 10,000,000 mosquitoes that first fed on a person with AIDS and then continued feeding on a susceptible person to get 1 transmission.

3. Mosquitoes are not flying hypodermic needles. Mosquitoes regurgitate saliva into the bite wound (the normal route for disease transmission) through a separate tube from that through which it imbibes blood.

What attracts mosquitoes to me?

Why some people seem to be more attractive than others to mosquitoes is the subject of much repellent (and attractant for traps) research being conducted nationwide. Carbon dioxide is the most universally recognized mosquito attractant and draws mosquitoes from up to 35 meters. When female mosquitoes sense carbon dioxide they usually adopt a zigzagging flight path within the plume to locate its source. Once in the general vicinity of a potential host, other cues predominate, including body odors (sweat, lactic acid, etc.) and heat. Odours produced by skin microflora also play a part in inducing the mosquito to land. Over 350 compounds have been isolated from odors produced by human skin. Either singly or in combination, many of these compounds may be attractants - and many may be repellents. As you can see, the situation is complicated and will require many years of testing before it can be sorted out. Visual stimuli, such as movement, also factor into host-seeking. What can be safely stated, though, is that ingestion of garlic, vitamin B12 and other systemics has been proven in controlled laboratory studies to have no impact on mosquito biting. Conversely, eating bananas did not attract mosquitoes as the myth suggests, but wearing perfumes does. People drinking beer have been shown to be more attractive to mosquitoes.

Limburger cheese has also been found to be attractive. Scientists have theorized that this may explain the attraction some mosquitoes find for human feet.

What are the basics of a successful mosquito Programme?

A successful mosquito management program should include the following elements:

1. larval and adult mosquito sampling;
2. source reduction;
3. biological control using native or introduced predators and parasites of mosquitoes,
4. larviciding and adulticiding, when indicated by surveillance;
5. resistance monitoring;
6. disease surveillance in mosquitoes, birds, horses and humans, and
7. public education.