

Understanding and Avoiding the Zika Virus

Dr Bill McGraw

Aquaculture and Environmental Scientist
(drbillmcgraw@investpanamanewshrimptechnology.com)

www.newaquatechpanama.com

Boquete, Panama

The History and Current Status

The Zika virus has spread from its origin in Africa. There are 70 types of Mosquitoes in Uganda, Africa, some carrying deadly viruses. Yellow Fever, Dengue, West Nile, Malaria and the Zika Virus are all spread by mosquito bites. Scientists estimate between one and two million people die each year from mosquito related illness. New viruses are encountered every year. Discovered by scientists in 1947 while studying the yellow fever in Uganda, the Zika virus presents new complications.

While in Uganda, it infects mostly monkeys and human symptoms are mild, including fever, rash and red eyes. According to the majority of reports, the apparent only real danger that exists is to unborn children, with birth defects developing in infected mothers. However, 4 out of 5 people that contract the virus, don't even know they have it, they don't develop any symptoms. Of the 1000s of babies that have been born with this birth defect, many have died.

Understanding and Prevention

The female mosquito bites someone to obtain nutrition for her offspring. She lays about 150 eggs in still water which develop into larvae. There are 4 separate larval stages and they develop into an adult in 10 days, with females again ready to infect more people. Unlike many other mosquitoes, Aedes is mainly active throughout the day.

The mosquito that spreads the virus, Aedes, is not present in Canada and Chile but the virus is likely going to spread to the rest of Central and South America. Brazil has 1.5 million cases of Zika virus.

Control of the spread of the Zika virus and possible infection requires eliminating all possible sources of standing water within 400 ft around homes and anywhere people exist. Also, added prevention can be screens in windows and doors in houses and wearing loose fitting, brightly colored long sleeves, pants and socks. Essential oils such as cinnamon, vanilla, citronella, catnip, lemon eucalyptus, peppermint and lemon applied to skin will repel mosquitoes. Regular consumption of vitamin B1 and garlic will make people less attractive to pregnant female mosquitoes, while eating bananas seems to attract them to people. Mosquitoes in general are drawn to carbon dioxide produced from breathing, and many unique scents produced from each body naturally, making some people more attractive than others.

In more permanent still water bodies, the addition of fish will eliminate all mosquito larvae. In fact, mosquito larvae are very attractive as food to many fish and many fish such as the "mosquito fish" feed almost exclusively on mosquito larvae. Since mosquito larvae breath air, adding a thin film of vegetable or mineral oil to permanent water bodies will "drown" and kill the larvae.

Panamas Ministry of Health together with the tropical research lab, the Gorgas Institute, are evaluating the option of releasing genetically modified mosquitoes in Panama to reduce the insects rate of reproduction. Also under consideration is mass information campaigns to reduce mosquito breeding areas. Currently there are about 50 cases of confirmed Zika virus all of the them in the Guna Yala area, likely spreading from the 23, 000 confirmed cases in Columbia.

New information confirms that this virus can also be transferred through unprotected sex. Currently there is no vaccine and no medicine available for the Zika virus and prevention may be the only cure. There are alternative ideas concerning the likelihood of Zika actually being the root cause of the birth defects

in children with toxic pesticides as a more probable culprit. Doctors from the [Brazilian Association for Collective Health \(ABRASCO\)](#) reported that out of 3,893 cases of malformations confirmed until January 20, 2016, 49 children have died and only five of them were confirmed to have been infected with Zika."

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