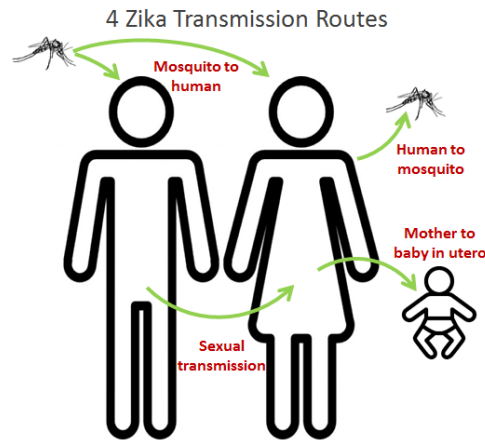


Zika Virus: What We Know and What We Don't Know

It's been in the headlines over the past weeks and there has been a lot of "media hype" about the Zika virus and the possibilities of an international health emergency. To quote former Secretary of Defense Donald Rumsfeld; "It's not the known unknown that we are worried about, it's the unknown known."

So, what is Zika virus and why has it exploded into an international concern? **Here is what we know.**

- Zika virus was discovered in Uganda Zika Forest in 1947. It has since been found in areas of tropical Africa, Southeast Asia, and the Pacific Islands.
- The virus is spread to humans by the bite of the *Aedes aegypti* mosquito (also known as the Yellow Fever Mosquito). **See routes of infection diagram below. Other possible routes of infection MAY be sexual transmission and pregnant mother to fetus.**



- As of the time of this article there have been NO recorded deaths from the Zika virus. (There have been an estimated 5,000,000 cases in 2015). Of the 5,000,000 cases, 20% of infections show symptoms such as fever, joint pain, and rash.
- Zika virus has recently been linked to the birth defect Microcephaly in infants born to women who were infected with the virus. Current data shows that there may be a correlation between Zika virus and microcephaly.
- There is no vaccine at this time for Zika virus.
- Comprehensive mosquito control where the Zika virus vector (*Aedes aegypti*) is present has kept Dengue fever, which is a similar virus, incidents low.
- Congress this week (5/13/16) is close to approving \$1.1 billion for Zika virus research/surveillance and control measures for the control of mosquitoes that may carry Zika virus which is short of 1.9 billion that President Obama has asked for.

What we don't know:

- *Aedes aegypti* is the known vector which has a limited range in the U.S. However, its close cousin, *Aedes albopictus* (Asian Tiger Mosquito) may be a carrier. As the disease establishes itself in the United States, *Aedes albopictus* with a much wider range (has been found as far north as Chicago) and is a very competent vector of Dengue fever may be an important vector. Luckily, this mosquito has not been found in Idaho.
- Can Zika virus be transmitted by other species of mosquito, such as the *Culex* species which is wide spread in North America and is the primary vector of West Nile Virus? Additional funding to research this is essential and needed.
- With the onset of warmer weather and an increase of potential Zika virus vectors, how fast will it spread?
- How common sexual transmission is?
- Does Zika virus causes microcephaly, (a birth defect that causes abnormally small heads in newborns)? The evidence so far is inconclusive but there are definite trends that is concerning and has led to recommendations by the WHO and CDC that pregnant women not travel to regions of active Zika virus transmission.

In closing, what we do as Pest Management Professionals is very important in protecting the quality of life for our customers/clients/constituents. Our main job is the health and welfare of all who pay our bills whether it is protecting their home from termites, protecting our food supply from insect damage, diseases or pathogens, keeping lawns and landscape healthy and vigorous which will keep unwanted pest at bay or protecting the public health by controlling disease carrying insects and rodents. Never forget or take for granted how important your job is.

Much of the information for this article has been provided by Clarke, one of the leading suppliers of vector control sales and services. Thank you, Clarke for this valuable information.

Have a great season,

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