

# Zika Virus Disease and Transmission

## Zika Virus Disease:

- Only 20 percent of people infected with the virus will experience any symptoms.
- Symptoms last a few days to a week and include mild fever, skin rashes, red eyes, muscle and joint pain, malaise and headache.
- There is no treatment for the disease.
- Women infected during pregnancy may pass the virus to their developing child. It is thought that this can be a cause of microcephaly.
- A possible rare side effect of Zika virus disease is Guillain-Barré syndrome, an auto-immune disorder which affects the nervous system.
  - Traps consist of containers holding a quantity of water. Clean water is not needed and the containers do not need to be very large. Place in the water a partially submerged piece of cardboard, stick, leaf, or fabric (such as a sock), for female mosquitoes to land on.
  - Symptoms will develop a few days or weeks after recovering from Zika and include weakness and a tingling sensation which may increase to the point of near total paralysis.
  - Severe cases require hospitalization and can be life threatening. Symptoms last up to 3 weeks in most cases, and are most severe in the second week.
  - Supportive care will lead to recovery for most patients, even severe cases, though sometimes with continuing weakness.

## Zika Virus Transmission:

- The Zika virus is primarily transmitted from human to mosquito to human.
- A person infected by the virus is bitten by a mosquito.
- The mosquito becomes infected with the virus through the blood it drinks. The virus makes its way into the mosquito's saliva over the course of 8 to 12 days.
- When the infected mosquito bites another human, the virus goes from the mosquito's saliva into the new person's blood, infecting them.
- The incubation time in humans is a few days to a week, after which the person can pass the virus to another mosquito. This infectious period lasts up to 7 days and may be accompanied by symptoms of the disease.
- One mosquito may bite and infect several people.
- The virus may sometimes spread from person to person through sex, from a female mosquito to her eggs, or between mosquitoes and some primates. However, in the case of the Zika virus outbreak in the Americas these other modes of transmission are comparatively rare.

### ***Aedes aegypti* Lifecycle:**

- In order to reproduce, a female mosquito must mate with a male and take a blood meal from a human. Human blood contains materials the female needs to produce eggs.
- After feeding on one or more humans, the female looks for a stagnant pool of water. She prefers small manmade containers in and around homes, including potted plants, blocked drains or roof gutters, roadside ditches, discarded receptacles, and tarps.
- The female lays her eggs in the water, attached to the sides of the container. She may lay 100 eggs at a time.
- A mosquito egg can survive in dry conditions for several months. When there is water in the container, the egg will hatch into a larva in about 2 to 4 days.
- The larva swims around the container with a distinctive wiggling motion and feeds on microorganisms. After around 4 days, it develops further into a pupa, which is like a caterpillar's cocoon.
- After 2 days, an adult mosquito emerges from the pupa and flies off. The entire lifecycle can be completed in 8 days, but it may take up to 3 weeks.
- Male mosquitoes only eat plant nectar and look for females. Females will look for humans to bite and reproduce.
- Most mosquitoes will stay close to the same dwelling they were born in, flying an average of 400 meters in their lifetime.