

## Dengue

Vector: Aedes mosquitoes: ***Aedes aegypti*** and **albopictus**. We have both.

Transmission cycle: Mosquito-human-mosquito

4 serotypes: Dengue 1, 2, 3 4.

Symptoms: Fever, headaches, myalgia, arthralgia, rash. Symptoms last about a week.

Hemorrhagic: Regular dengue symptoms + Severe abdominal pain, persistent vomiting, change in mental status, signs of shock, skin hemorrhage, plasma leakage.

Vaccine in Mexico, but no FDA approved vaccine in the U.S yet. No cure

## Chikungunya

Mostly the same as dengue, except you get severe joint pain. No deaths. No hemorrhage

## West Nile

Infects: Humans, Birds. Mosquitoes and Horses

Vectors: Culex. We have the vectors.

Transmission: Mosquitoes- birds (birds act as virus amplifiers). Humans and horses- dead end host.

Symptoms:

70- % 80% people have no symptoms

20% have mild febrile symptoms like rash, body aches, fever.

Severe infection: 1 in 150 cases are severe

Neuroinvasive disease: headache, high fever, neck stiffness, coma, paralysis, death

## Zika

Closely related to dengue and chikungunya with the same vectors.

It was first isolated in Africa in Uganda in 1947

Generally a mild disease. 80% people asymptomatic

### Symptoms:

- Fever
- Rash,
- Joint Pain,
- Conjunctivitis (red eyes).
- Muscle pain
- Headache.

In 2015, Cases of microcephaly spiked in Brazil while they were having a Zika outbreak.

It went from estimated 150-3000

Zika virus found in breast milk but it might not be transmissible, according to CDC.

### **Link between microcephaly suspected NOT CONFIRMED.**

Zika virus found in placenta and nervous tissues of babies with microcephaly whose mothers had zika. More cases being tested and studied. Not all 3000 cases have been tested for zika in Brazil.

Scientists don't understand much more than that about the connection.

There is also a potential connection to Guillan Barre. Nothing known about that either.

No Vaccine

No Cure

WHO estimates 4 million to 5 million cases of Zika in the Americas by the end of the year. WHO has subsequently declared a global emergency.

No local cases in the Valley. Some travel associated cases in Houston.

A sexually transmitted case in Dallas as of 02/03/2016

2 confirmed cases of local transmission in Mexico confirmed by CDC in Chiapas and Nuvea Leon.

### **Testing**

CDC is the only lab testing for Zika right now. However, according to CDC, there are trying to get the capacity to test for Zika in some state labs soon.

### **Prevention**

#### **4 D's**

1. Stay indoors at dawn and dusk
2. Dress in long sleeves
3. Use DEET. (Safe even for pregnant women)
4. Drain standing water