

FLAVIVIRIDAE

GENUS FLAVIVIRUS

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- GENUS FLAVIVIRUS (MOSQUITO-BORNE)

YELLOW FEVER VIRUS

DENGUE FEVER VIRUS

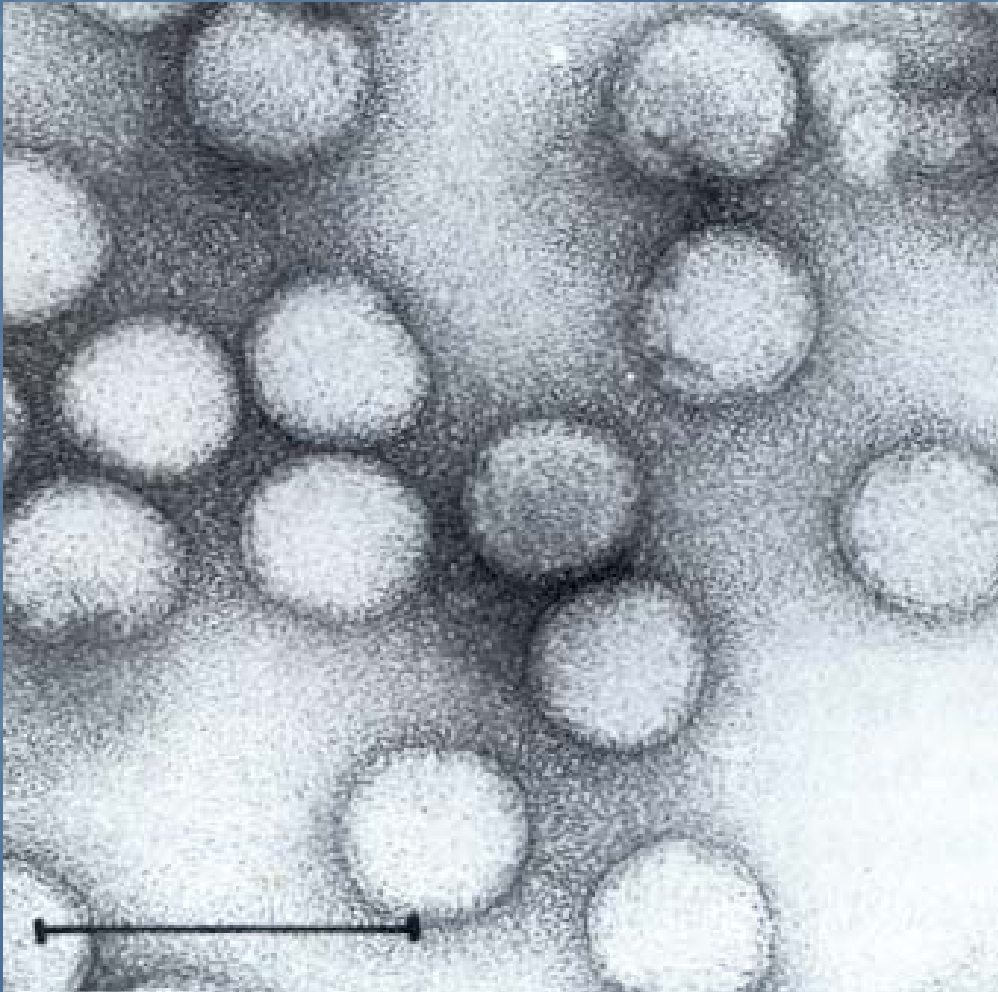
ST. LOUIS ENCEPHALITIS

WEST NILE VIRUS

MOSQUITOES

ANOPHELINE	CULICINES	
ANOPHELES	AEDES	CULEX

FLAVIVIRUS



- Flavivirus. Negatively stained virions of tick-borne encephalitis virus. Bar, 100 nm.

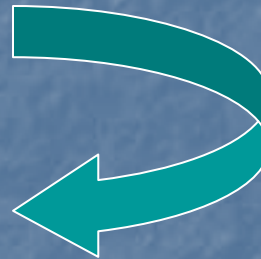
YELLOW FEVER

- THERE IS A JUNGLE OR SYLVAN YELLOW FEVER IN WHICH MONKEYS ARE INFECTED BY MOSQUITOES .

MONKEYS

MOSQUITOES

MONKEYS



YELLOW FEVER

- THERE IS ALSO URBAN YELLOW FEVER IN WHICH HUMANS ARE INFECTED BY MOSQUITOES

HUMANS

MOSQUITOES

HUMANS



THE MOSQUITO IS AEDES AEGYPTI

YELLOW FEVER

- YELLOW FEVER IS AN ACUTE, FEBRILE, MOSQUITO-BORNE ILLNESS THAT IS CHARACTERIZED BY FEVER, JAUNDICE, PROTEINURIA, AND HEMORRHAGE.
- THE INCUBATION PERIOD IS 3 – 6 DAYS.
- THERE IS FEVER, CHILLS , HEADACHE, BACKACHE, NAUSEA AND VOMITING.

YELLOW FEVER

- THE VIRUS INVADES THE LIVER, SPLEEN, KIDNEY, BONE MARROW, AND LYMPH GLANDS.
- DEATH MAY RESULT FROM NECROTIC LESIONS IN THE LIVER AND KIDNEY. HEMORRHAGE USUALLY OCCURS IN THE STOMACH.

ARBOVIRUSES



- 'Coffee ground' vomit in yellow fever. It is a sign of upper gastrointestinal bleeding.

YELLOW FEVER

- THERE IS AN EXCELLENT LIVE-VIRUS VACCINE. IT WAS ATTENUATED BY SERIAL PASSAGE THROUGH MONKEY BRAINS. IT IS KNOWN AS THE 17D YELLOW FEVER STRAIN. IT CAN BE GIVEN TO PERSONS 9 MONTHS OF AGE OR OLDER.

YELLOW FEVER

- IT SHOULD BE TAKEN IF YOU ARE TRAVELING TO PARTS OF AFRICA OR SOUTH AMERICA. WHERE YELLOW FEVER IS PRESENT.

DENGUE FEVER

- THERE IS BOTH A JUNGLE AND AN URBAN DENGUE FEVER JUST AS THERE IS IN YELLOW FEVER.
- 2 – 15 DAYS AFTER INFECTION, THERE IS FEVER, MALAISE, CHILLS AND HEADACHE. THIS IS FOLLOWED BY PAIN, ESPECIALLY IN THE BACK, JOINTS, MUSCLES, AND EYEBALLS. IT IS KNOWN AS "BREAKBONE FEVER".
- IT IS RARELY FATAL.

DENGUE FEVER

- A MUCH MORE SERIOUS FORM OF THE DISEASE IS DENGUE HEMORRHAGIC FEVER (DHF) OR DENGUE SHOCK SYNDROME (DSS). IT USUALLY OCCURS IN CHILDREN AND IS DEADLY (UP TO 40% MORTALITY RATE).

DENGUE



- Dengue hemorrhagic fever causing marked ecchymosis associated with disseminated intravascular coagulation in an infected 8-year old boy.

DENGUE



- Dengue hemorrhagic fever. Scleral hemorrhage.

DENGUE



- Dengue hemorrhagic fever. Petechial rash.

ST. LOUIS ENCEPHALITIS (SLE)

- IT HAS THE SAME LIFE CYCLE AS EEE AND WEE.
- IT IS FOUND IN THE MISSISSIPPI RIVER VALLEY, CALIFORNIA, TEXAS, AND FLORIDA.
- THERE ARE LARGE EPIDEMICS WITH MOST CASES INAPPARENT.
- ABOUT 7% OF THE ENCEPHALITIS CASES END IN DEATH.

WEST NILE VIRUS

- DURING LAST YEAR'S RECORD EPIDEMIC MORE THAN 4,000 PEOPLE BECAME ILL AND 274 PEOPLE DIED.

WEST NILE VIRUS

Transmission

- Transmitted by the *Culex* and *Aedes* mosquitoes
- Birds are a major carrier



Symptoms

- An estimated 20% don't develop West Nile Fever and experience mild flu-like symptoms
- West Nile encephalitis or meningitis-headache, high fever, coma, tremors, paralysis and sometimes death.

Control of West Nile Virus

- Currently there is no approved vaccine for West Nile Virus
- Mosquito control is the method currently being used to offer some protection