



Dengue Fever, Chikungunya, Zika

These are caused by viruses, which are transmitted by day-biting mosquitoes. They all have similar symptoms at their onset.

What is...

Dengue fever (DF)?

- DF is a severe disease. It is sometimes called break bone fever, as it causes severe joint and muscle pain.
- DF occurs in over 100 countries worldwide, and is now the leading cause of fever in returning travelers from the Caribbean, Latin America and Southeast Asia (CDC, 2016)

Chikungunya?

- Usually causes fever and arthritis-like joint pain

Zika?

- Usually a mild illness; severe disease is uncommon
- In 2015, Zika is being reported for the first time in Mexico, the Caribbean and other Central and South American countries
- There has been a possible association of Zika virus with microcephaly (a neurodevelopmental disorder) and other central nervous system malformations in infants, following prenatal infection. ¹

How does a person get these illnesses?

- The virus is transmitted by the bite of the female *Aedes aegypti* mosquito.
- The Aedes mosquito lives in many tropical and subtropical areas in Asia, Africa, Central and South America, Caribbean, Pacific Islands and northern Australia. Local transmission of Chikungunya was first reported in the Caribbean in December 2013.

- Outbreaks are most common when the mosquito population is at its peak (e.g. summer months, warm humid seasons).
- People are most likely to become infected in urban areas. This is because mosquitoes breed in flower pots, cisterns, and shallow water containers such as discarded tires, which are found in towns or cities.

What are the symptoms of:

Dengue fever?

- Headache and eye pain, fever, rash (flat or raised large red spots), extreme exhaustion and weakness.
- Severe pain in legs and joints, especially in the first hours of illness.
- Symptoms usually begin 5 – 8 days (range 3-10 days) after the mosquito bites.
- People are usually ill for 7 – 10 days, and can experience weakness for weeks to months.
- Rarely causes death.
- People who have had dengue fever before, who are under 15 years or who have lowered immunity may get a more severe disease called “dengue hemorrhagic fever” (DHF). The symptoms of DHF are usually fever, headache, respiratory (sore throat, cough, difficulty breathing) and gastrointestinal (nausea, vomiting, abdominal pain) symptoms, shock and bleeding tendencies.
- Dengue shock syndrome (DSS) kills 40 – 50% of people who are untreated. With proper treatment in hospital, only 1-2% will die.

Chikungunya?

- Fever, joint pain usually; fatigue, headache, nausea, vomiting, muscle pain and rash may occur
- Symptoms usually begin 3-7 days (range 1-12 days) after the mosquito bite
- Most people recover after 7-10 days, but the joint pain may persist for weeks or months
- Complications are rare, but may be more common in infants, older travelers, and those with chronic medical conditions

Zika?

- Rash, joint pain, conjunctivitis (red eyes), headache, malaise, fever, vomiting
- Symptoms usually begin 3-7 days (range 3-12 days) after the infected mosquito bites
- Symptoms last for several days to a week

How do you prevent these illnesses?

- No vaccine is available to prevent these.

- Protect yourself against day-biting mosquitoes by using insect repellent, protective clothing and screening (see "Insect Precautions" handout).

How do you treat these illnesses?

- There is no specific treatment, but symptoms can be treated with rest, fluids, and pain medicine (not aspirin, ibuprofen or Naprosyn for Dengue Fever)
- See your doctor immediately if you become ill with a fever or develop any signs of bleeding (e.g. bruising or nosebleed), within 3 weeks after leaving a tropical area.
- DHF is treated with intravenous fluids, oxygen and possibly other medications/blood products
- Most zika infections resolve over a few days

1 ECDC has recently published rapid risk assessment (See:

<http://ecdc.europa.eu/en/publications/Publications/zika-microcephaly-Brazil-rapid-risk-assessment-Nov-2015.pdf>)

For more information, call Specialized Immunization and Travel Health at (306) 655-4780

www.saskatoonhealthregion.ca/internationaltravel
