

Mosquito-Borne Disease Clinical Comparisons

Government of the District of Columbia
Department of Health (DC Health)

Most mosquito-borne diseases are indistinguishable clinically, presenting with symptoms similar to the common flu, and not everyone exposed to a mosquito-borne disease will develop symptoms. The only way to confidently determine the final diagnosis if a mosquito-borne disease is suspected is through **diagnostic testing methods**.

When assessing patients for a suspected mosquito-borne disease one of the most important steps is to determine an **accurate travel history**. West Nile virus is the only mosquito-borne disease that has been detected in mosquitoes found in the District of Columbia. To-date all other cases of mosquito-borne diseases detected in DC residents have been related to travel outside the U.S. Compatible symptoms and an appropriate travel history make imported mosquito-borne diseases more likely. However, if you suspect a patient with no reported travel history has a mosquito-borne disease other than West Nile virus, contact DC Health immediately at (202) 442-9143 or mosquito.info@dc.gov.

The following table shows some clinical features associated with specific mosquito-borne diseases. The table does not include all the possible symptoms and not all patients will display all the symptoms highlighted with some remaining asymptomatic. Furthermore, a symptomatic patient may display some, but not all, of the symptoms listed. The information on the table is meant to serve as a guide and not to reach a definitive diagnosis.

		Chikungunya	Dengue	Malaria	West Nile	Yellow Fever	Zika
average time from exposure to development of symptoms		3 to 7 days <i>(range: 1 to 12 days)</i>	4 to 10 days <i>(range: 3 to 10 days)</i>	≥14 days <i>(range: 7 days to several months)</i>	2 to 6 days <i>(range: 2 to 14 days)</i>	3 to 6 days	3 to 14 days
common symptoms	fever	✓	✓	✓	✓	✓	✓
	headache	✓	✓	✓	✓	✓	✓
	body/muscle aches	✓	✓	✓	✓	✓	✓
	chills	✓	-	✓	-	✓	-
	eye pain	-	✓	-	-	-	✓
	conjunctivitis	✓	-	-	-	-	✓
	joint pain	✓	✓	-	✓	-	✓
	nausea/vomiting	-	✓	✓	✓	✓	-
	rash	✓	✓	-	✓	-	✓
unique symptoms	severe joint pain and/or swelling	low white blood cell count bleeding manifestations vascular leakage and shock [‡]	waxing/waning fever and chills	meningitis, encephalitis, myelitis	red eyes, face or tongue hepatitis/jaundice	congenital Zika syndrome	

[‡]If exposed to two different serotypes