What is Marburg hemorrhagic fever?
Marburg hemorrhagic fever (Marburg HF) is a rare but severe hemorrhagic fever which affects both humans and non-human primates. Marburg HF is caused by Marburg virus, a genetically unique zoonotic, or animal-borne) RNA virus of the filovirus family. The reservoir host of Marburg virus is the African fruit bat. Fruit bats with Marburg virus do not show obvious signs of the illness. Primates can become infected with Marburg virus, and may develop serious disease with high mortality.

How is Marburg HF transmitted?
It is unknown how Marburg virus first transmits from its animal host to humans; however, for the 2 cases in tourists visiting Uganda in 2008, unprotected contact with infected bat feces or aerosols are the most likely routes of infection. After this initial crossover of virus from host animal to humans, transmission occurs through person-to-person contact. This may happen in several ways: direct contact to droplets of body fluids from infected persons, or contact with equipment and other objects contaminated with infectious blood or tissue.

What are signs and symptoms of Marburg HF?
After an incubation period of 5-10 days, symptom onset is sudden and marked by fever, chills, headache, and myalgia. Around the fifth day after the onset of symptoms, a maculopapular rash, most prominent on the chest, back, and stomach may occur. Nausea, vomiting, chest pain, a sore throat, abdominal pain, and diarrhea may then appear. Symptoms become increasingly severe ad can include jaundice, inflammation of the pancreas, severe weight loss, delirium, shock, liver failure, massive hemorrhaging, and multi-organ dysfunction.

How is Marburg HF diagnosed?
Many of the signs and symptoms of Marburg HF are similar to those of other more frequent infectious diseases, such as malaria or typhoid fever, making diagnosis difficult. Antigen-capture enzyme-linked immunosorbent assay (ELISA)
testing, polymerase chain reaction, and IgM-capture ELISA can be used to confirm a case of Marburg HF within a few days of symptom onset.

**What is the treatment for Marburg HF?**
There is no specific treatment for Marburg HF. Supportive hospital therapy should be utilized, which includes balancing the patient’s fluids and electrolytes, maintaining oxygen status and blood pressure, replacing lost blood and clotting factors, and treatment for any complicating factors.

**For more information:**

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*The Toledo-Lucas County Health Department is committed to providing relevant and timely information during a public health emergency.*

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