

Marburg Virus Disease

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Why in news?

- Tanzania has announced its first outbreak of the deadly Marburg virus disease (MVD).

- This was after five people died and three others were infected with the virus in Tanzania's north-west Kagera region.

Marburg virus disease

What is the Marburg virus disease?

- According to WHO, Marburg virus disease (MVD), earlier known as Marburg hemorrhagic fever, is a severe, often fatal hemorrhagic fever.
 - It is a zoonotic virus that is initially transmitted from animals to humans.
- Marburg, like Ebola, is a **filovirus**; and both diseases are clinically similar.
- Rousettus fruit bats are considered the natural hosts for the Marburg virus.
 - However, as per WHO, African green monkeys imported from Uganda were the source of the first human infection.
- The disease has an average fatality rate of around 50%. However, it can be as low as 24% or as high as 88% depending on virus strain and case management.

What are the symptoms of Marburg virus disease?

- After the onset of symptoms, which can begin anytime between two to 21 days, MVD can manifest itself in the form of high fever, muscle aches and severe headache.
- Around the third day, patients report abdominal pain, vomiting, severe watery diarrhoea and cramping.
 - In this phase, the appearance of patients has been often described as "ghost-like" with deep-set eyes, expressionless faces, and extreme lethargy.
- Between days five and seven, patients report bleeding from the nose, and gums and blood appearing in vomit and faeces.
- Severe blood loss leads to death, often between eight to nine days after symptoms begin.

How does it spread?

- Marburg spreads through direct contact (through broken skin or mucous membranes) with infected people's blood, secretions, organs, or other body fluids.
- It also spreads through surfaces and objects (e.g., bedding, clothing) contaminated with these fluids.

How can Marburg virus disease be diagnosed and treated?

- It is difficult to clinically distinguish MVD from diseases such as malaria, typhoid fever and other viral haemorrhagic fevers.
 - However, it is confirmed by lab testing of samples, which like Coronavirus and Ebola are extreme biohazard risks.
 - There is no approved antiviral treatment or vaccine for MVD as of now. It can be managed with supportive care.
 - According to the WHO, rehydration with oral or intravenous fluids, and treatment of specific symptoms can help prevent death.
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Q1) What is filovirus?

Filoviruses are a family of viruses that can cause severe hemorrhagic fever in humans and other primates. They are named after their characteristic filamentous or “thread-like” appearance under an electron microscope.

Q2) What is a virus?

A virus is a microscopic infectious agent that replicates itself inside living cells of organisms. Viruses are not considered living organisms, as they cannot survive or reproduce outside of a host cell. They are composed of genetic material, either DNA or RNA, surrounded by a protein coat called a capsid. Some viruses also have an outer envelope made of lipids.

Source: [Marburg virus disease outbreak kills five in Tanzania: What is this virus?](#) | [Centres for Disease Control and Prevention](#) | [News18](#)

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