Ebola outbreak



West AFRICA •



Figure 16.8 Locations of filovirus outbreaks in Africa. The sites and years of filovirus episodes and outbreaks in African countries are shown.



BACKGROUND

Ebola virus disease (formerly called Ebola Hemorrhagic disease) is a severe, often fatal, disease in humans and non-human primates caused by the Ebola virus .

In 2014, a major outbreak of Ebola Virus spread amongst several African countries, including Sierra Leone, Guinea, and Liberia. The virus first appeared in the Democratic Republic of the Congo (formerly Zaire) in the summer of 1976. Most outbreaks have been small, but the virus captured the attention of the world due to death rates that can be as high as 90% as well as the visceral manner in which it kills [7,24]. Few viruses have the ability to turn internal organs into a soup that promptly flows out of the body, so those that do tend to capture the public eye.



Virion Structure

Filoviridae, of which Ebola virus is a member, is a family of viruses that contain single, linear, negative - sense ssRNA genomes.

- The capsid has a helical morphology and is encased inside a membrane envelope.
- Several viral proteins and glycoproteins stud the membrane. One surface protein is extensively glycosylated and this may inhibit the generation of antibodies against the protein.
- VP30 in the matrix of the virus seems to be important during budding of the virus from the membrane.
- The primary capsid protein is a nucleoprotein (NP) whose N terminal interacts with viral RNA and the rest contacts other viral proteins in the matrix or envelope.
- These latter contacts may be important in viral assembly. Associated with the viral RNA is the L protein that is responsible for replication of the virus upon infection.







How does the Ebola virus enter body cell ?

Ebola virus takes advantage of a non-specific engulfing process called **macropinocytosis**, which allows the virus to be "eaten" by a wave-like motion of the cell membrane



Fruit Bats Likely Hosts of Deadly Ebola Virus

EBOLA THE FACTS

TRANSMISSION

In Africa a particular species of **fruit bat** is considered to be the possible host for Ebola virus

Primary host Fruit bat Secondary hosts Gorillas Chimpanzees Antelopes Pigs

Humans are infected by close contact with the blood, secretions, organs or other bodily fluids of infected animals



Ebola then spreads through human-to-human transmission, with infection resulting from direct contact through broken skin or mucus or other bodily fluids of infected people

Replication







Diagnosis :

Is recognized as the virus through a blood test or urine or saliva by the laboratory with a very modern electron microscope has the ability to shoot particles.

To eradicate the disease :

Who die They were wrapped plastic Bashrashv and buried immediately.

Treatment :

There is currently no vaccine to protect against the Ebola virus. And in the absence of a specific treatment plan or drug to tackle the disease, it poses a real risk.

Ebola survivors often develop chronic inflammatory conditions that affect the joints and eyes, problems which they can be burdened with for the rest of their lives.

And those who have overcome the disease frequently complain of a condition called uveitis, which can cause tearing, sensitivity in the eye, inflammation and in extreme cases, blindness.

6 WAYS TO PREVENT EBOLA

EBOLA IS A DANGEROUS VIRUS BUT CAN BE AVOIDED EASILY!



AVOID PHYSICAL CONTACT WITH PEOPLE SHOWING SYMPTOMS OF THE EBOLA VIRUS



WASH YOUR HANDS REGULARLY WITH CLEAN WATER AND SOAP



KEEP AWAY FROM (FRUIT)BATS, MONKEYS, DEAD ANIMALS AND BUSH MEAT





INFORM HEALTH AUTHORITIES IMMEDIATLY IN CASE OF CONTACT WITH EXPECTED OR CONFIRMED EBOLA CASES



ONLY TRAVEL TO AREAS WHERE THERE IS AN EBOLA OUTBREAK IN CASE OF URGENT NEED

SIGNS AND SYMPTOMS: SUDDEN FEVER, INTENSE WEAKNESS, MUSCLE PAIN, HEADACHE AND SORE THROAT. POSSIBLY FOLLOWED BY VOMITING, DIARRHEA, RASH, IMPAIRED KIDNEY AND LIVER FUNCTION, INTERNAL AND EXTERNAL BLEEDING.

Cordaid 5

BUILDING FLOURISHING COMMUNITIES

Ebola virus disease

Ebola, which first appeared in outbreaks in Sudan and DR Congo in 1976, is a severe and often fatal disease with no known specific treatment or vaccine. It has since killed more than 1,500 people in parts of Africa.

SOURCE

In Africa, particular species of fruit bats are considered possible natural hosts for Ebola

TRANSMISSION

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Infected bats are thought to transmit the disease to humans, or indirectly through other animals which are hunted for their

DAMAGE

 Incubation period is from two to 21
days. Death from the disease is often caused by multiple organ failure and

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