

Life and the virus
may enter the cell



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Life is a biological internet in which viruses travel like messages, moving at high speed from node to node and from city to city. They are diverse and wild spread in every plane on the surface of the earth. Ironically, such invisible creatures have a substantially enormous effects on human life and health. In most cases, Viruses are harmful and sometimes deadly. One of these deadly viruses is the Ebola virus, a highly contagious, deadly and mysterious microbe, known to be the most lethal virus known to human kind that have caused many devastation.

The mere essence of their existence is not to cause harm, they are living organisms who want to reproduce and spread with the help of a host. The Ebola virus, like most viruses, consists of a shell of proteins surrounding genetic material, like RNA and DNA. Once inside the cell, the virus gets hold to the host cell and the virus may enter the cell as it injects its genetic material into the host cell. The virus then uses the host cell's machinery to replicate themselves and make new copies of itself. Each new copy of the virus directs the host cell to make it a protein shell.

The new viruses leave the host cell to other cells and repeat the same process over and over again. Although man is not Ebola's natural host, the virus infects people, and the adventure is suicidal as the infected victims struggle with the symptoms. The infected victim staggers, disoriented and exhausted, and collapses in a fever, which is known as the Haemorrhagic fever. The fever is characterized by weakness, muscle pain, headache and sore throat. The victim's eyes turn bright red, and starts vomiting blood. The tongue peels, and the heart muscle becomes soft. Scientists believe that

when the victim get in contact with the virus, the virus first triggers a combination of blood clots and hemorrhages.

The patient's bloodstream throws clots, and the clots lodge everywhere, especially in the spleen, liver, and brain, then it settle in the victim throat. Bleeding involves the nose, abdomen, and pericardium. Capillary leakage appears to lead to loss of intravascular volume leading the patient to fall in a shock and acute respiratory disorder leaving the patient desperately trying to gasp their breath.

The virus kills its victims so quickly, before it even can infect others. The incubation period for the Ebola virus ranges from 2 to 21 days, depending upon the method of infection. The Ebola virus can be diagnosed with laboratory testing of blood specimens under maximum containment conditions as the high risk of infection to those handling infected blood remains a nightmare to them. Infection of this deadly virus occurs through the blood and is replicated in organs like the Liver, lymphatic organs, and the kidneys.

However, it is spread through close personal contact with the infected person who is very ill with the disease. Normally, the wild spread of Ebola virus takes place among hospital care workers or family members who were aiding an infected person. Ebola can spread by the reuse of hypodermic needles, which occurs frequently in underdeveloped countries like Zaire and Sudan, but it is unlikely to become infected by close contact with persons infected who show no symptoms. Three outbreaks of Ebola hemorrhagic fever among people had been reported.

The first two outbreaks were in 1976: one in Zaire and one in western Sudan. These were large outbreaks, resulting in more than 550 cases and 340 deaths. The third outbreak, in 1979 in Sudan, was smaller, with 34 cases and 22 fatalities. During each of these outbreaks, a majority of cases occurred in hospital settings under the challenging conditions of the developing world. These conditions, including lack of healthy medical supplies and the reuse of the same needles and syringes, played a major role in the spread of disease. Through isolation of sick persons in a place requiring the wearing of mask, gown and gloves careful sterilization of needles and syringes and proper disposal of waste and corpses. Causing death in 85% of all ill cases.

More than 5, 000 people have been infected worldwide. Victims go mad, endure unbelievable pain, with blood leaking from every orifice. Yet