

the gigantic virus

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Viruses are supertiny....but there are some biggies among them! A group of viruses called filoviridae is the largest. Filoviridae are long, thin viruses that look like bent tubes. The length can be up to 1,000 nanometers but are only 80 nanometers in diameter. They can be longer than smaller bacteria. In order to peep a virus, you require a special type of electron microscopes; not the ordinary light microscopes.

The Ebola virus is included in the filoviridae group. It is serpentine and filamentous in shape. The virus first appeared in 1976 in two simultaneous outbreaks, in Nzara, Sudan, and in Yambuku, Democratic Republic of Congo. It is named after the Ebola river where the Yambuku village is located. The reservoir of the Ebola virus is bats. Primates get infected by eating bats or leftover fruit dropped by the bats. Men get infected when they are bitten by the bats or when they consume infected primates as food.

Human-to-human spread is through direct contact (through broken skin or mucous membranes) with the blood, secretions, organs or other bodily fluids of infected people; or indirect contact with environments contaminated with such fluids. The virus causes fatal haemorrhagic fever which is characterized by sudden onset of fever, intense weakness, muscle pain, headache and sore throat. This is followed by vomiting, diarrhoea, rash, impaired kidney and liver function, and in some cases, both internal and external bleeding. During outbreak, the case fatality rate is up to 90%. According to World Health Organization (WHO), the outbreak of Ebola virus disease in West Africa continues to evolve, with cases confirmed in Guinea, Liberia, Nigeria, and Sierra Leone. To date, no vaccine is available for Ebola.

