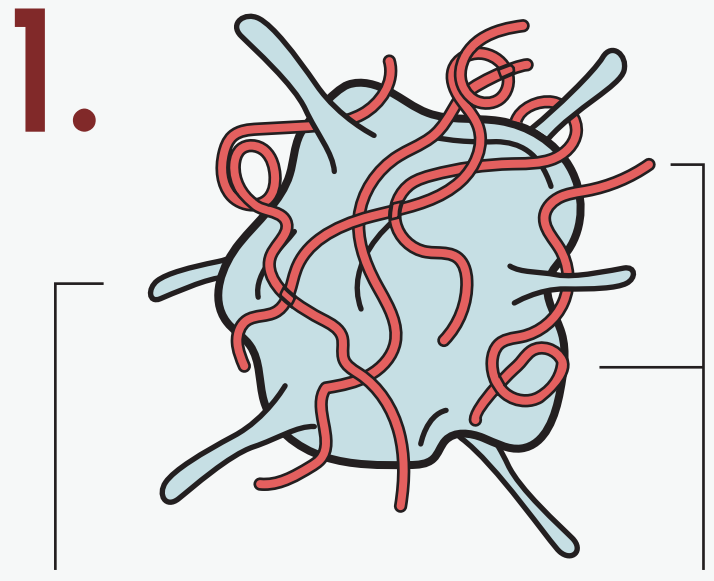
LIFE CYCLE OF THE EBOLA VIRUS

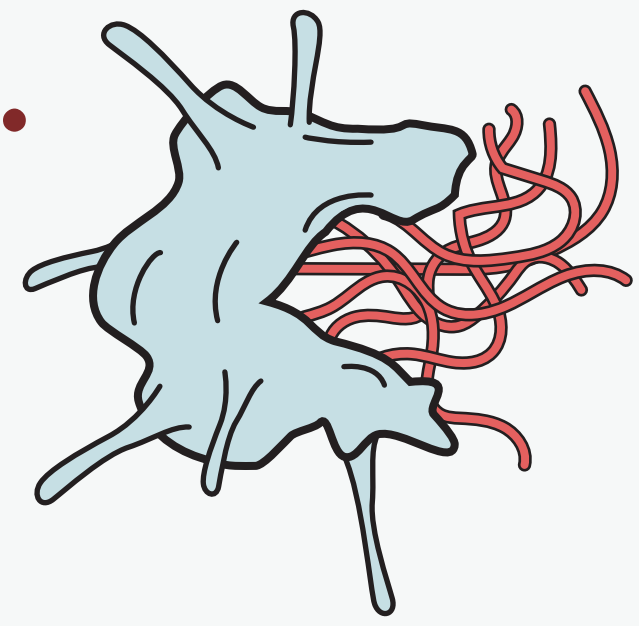
One of the deadliest known viruses, Ebola can have a fatality rate of up to 90%. Infection triggers a severe immune response that damages cells and causes massive internal bleeding and organ failure.

1.



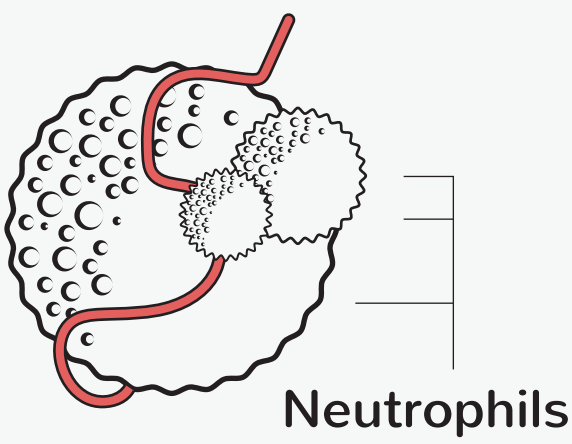
The virus first attacks and invades **dendrites** — cells that alert the body to infection. By doing this, the virus can evade the immune system and begin replicating itself.

2.



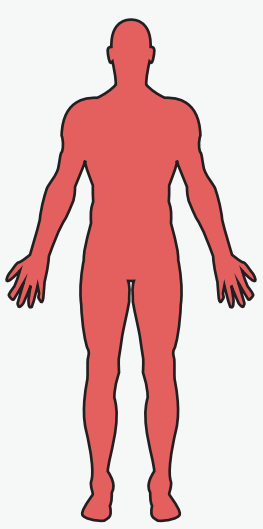
Infected cells rupture, releasing more virus particles into the body as well as a flood of **cytokines** — molecules that cause fever and inflammation. This "cytokine storm" damages blood vessels and causes internal bleeding.

3.



Certain white blood cells called **neutrophils**, which would normally fight an infection, can act as carriers and spread the Ebola virus throughout the body.

4.



After the virus has spread through the body, death is most often attributed to severe blood loss and massive organ failure.

Sources: World Health Organization, Centers for Disease Control and Prevention, Wikipedia, National Public Radio

Graphic: Grayson Mendenhall