



Ebola Virus Q&A

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What is Ebola virus (EBOV)?

Ebola virus is a filovirus. Filoviruses have been recognized as major threats to public health since 1967, when monkeys imported to Marburg, Germany for scientific research transmitted a virus that killed nearly a quarter of the 31 people who were infected. Both Marburg virus and Ebola virus, which was first isolated in the Democratic Republic of the Congo (DRC, formerly Zaire) in 1976, have caused outbreaks with fatality rates 25 – 90%.

Where does Ebola virus come from?

No one knows for sure. It is likely that the Ebola virus disease is a zoonosis, which means that the virus comes from animals. The increased frequency of outbreaks of Ebola virus disease may be due to more human contact with the reservoir species or another intermediate species that is an Ebola virus carrier. Bats are the reservoirs of several filoviruses, including Marburg virus and some other close relatives of Ebola virus. Ebola virus sequences and antibodies have been found in fruit bats. However, the inability thus far to culture infectious Ebola virus from bats has precluded definitively assigning any bat species as the Ebola virus reservoir.

Are the symptoms of Ebola the same as portrayed on TV and in the movies?

No – these portrayals are often inaccurate. Dramatizations of Ebola, such as in the recent National Geographic miniseries THE HOT ZONE based on the book by Richard Preston, showed persons with Ebola developing blood-filled blisters on their faces and elsewhere. While Ebola is a horrific disease, people rarely, if ever, develop blood-filled blisters on their faces and elsewhere. If they did, this would help in the containment of the virus as it would be an early indicator of infection. The reality of Ebola is more frightening, because it is difficult to tell whether a person is harboring the virus early in the disease course. Ebola and other filovirus diseases manifest principally as a gastrointestinal illness. Vomiting and diarrhea are likely to be the principal means that the virus is spread. Other bodily fluids besides blood, such as sweat (even after death) or semen can transmit the virus.

Can people survive Ebola?

Yes – many people survive Ebola infection. With proper supportive care, such as maintaining a patient's fluid balance, and potentially with experimental therapies under consideration, people can survive Ebola infection. Ongoing medical issues following Ebola infection can occur in survivors, including loss of vision and neurological problems. Ebola survivors may also suffer

stigma and discrimination depending on their location and condition, and may need help reintegrating into their communities. Children orphaned by Ebola need sustained support.

Can I get a vaccination against Ebola?

Not yet, unless you are volunteering for a clinical trial or receive an experimental version of a vaccine. There are several Ebola vaccines that are in advanced stages of development and one of the new vaccines has been deployed in the current outbreak in the Congo. HCW and first responders are being vaccinated. Studies have suggested that these Ebola vaccines are highly efficient. **Several scientists of the Global Virus network are working on it.**

Are there any treatments for Ebola?

Not yet, but like the Ebola vaccines, they are in development and may be available to some people in clinical trials. Both monoclonal antibodies and small molecule drugs are being tested during the current Ebola outbreak in the Congo. **Several scientists of the Global Virus network are working on it.**

Doesn't a travel ban to and from countries with Ebola make sense?

No – until local capacity is sufficient to manage an Ebola outbreak travel must not be restricted, so that local communities can receive needed international support. Furthermore, borders in Africa are porous and local communities rely on cross-border trade. Many economies in Congo and other countries at risk for outbreaks are fragile and shutting borders would impose serious hardships on the daily lives of individuals. Restricting travel might also cause people to enter countries outside of official checkpoints. These checkpoints help to control Ebola outbreaks by recording the names of travelers and taking their temperatures.

Don't Ebola outbreaks just burn out?

No – this was a myth propagated by some “experts” early during the West African Ebola outbreak. Stopping an Ebola outbreak, particularly when it reaches dense population centers, requires community awareness and public health interventions.

Is Ebola virus mutating?

Yes – all viruses mutate. An Ebola virus linked to the 2013-16 outbreak in West Africa had a mutation that allowed it to replicate somewhat better in human cells in culture. However, the Ebola virus does not spread by aerosols, like influenza or measles. It is not at all likely that Ebola will mutate to a virus that can be spread in the air.