

EBOLA VIRUS DISEASE

Human pathogen information sheet

What is Ebola virus disease?

Ebola virus disease (EVD) is a serious infectious disease caused by an ebolavirus. The disease can progress as a viral haemorrhagic fever (haemorrhagic = causing bleeding), resulting in blood loss. Major outbreaks of Ebola virus disease were first observed in 1976 in Sudan and DR Congo, in a village near the Ebola river, after which the virus is now named. Depending on the viral type, the disease proves fatal in 30–90% of cases. In March 2014, the largest outbreak to date occurred in Guinea, and is spreading to other parts of West Africa.

How is Ebola virus disease transmitted?

From animals to humans

Flying mammals – such as bats and flying foxes – and apes from regions affected by Ebola fever are the pathogen's most likely natural reservoir. There is a risk of infection from direct contact with the blood or other bodily fluids of infected wild animals, whether alive or dead. Transmission of the virus from animals to humans is also possible by the preparation and consumption of uncooked wild animal meat, known as "bush meat". Animals native to Germany are not carriers of ebolaviruses.

Person-to-person

During an outbreak, the infection is transmitted almost exclusively person to person. The pathogen can be transmitted via direct contact with blood and other bodily fluids such as sweat, saliva, faeces, urine or vomit from sick people or people who have died from the disease. There is a risk of infection only if individuals show signs of having the disease. Unprotected sexual intercourse with men who have survived the disease carries a risk of infection via their seminal fluid for several months after the first onset of symptoms. Airborne transmission of the disease (i.e. by breathing) has not been observed to date. Cases of vomiting or severe diarrhoea do risk releasing droplets containing pathogens, however.

Via objects

Ebola viruses can remain infectious for several days outside the body. Accordingly, infection via objects such as syringes, clothing or bedclothes contaminated with bodily fluids is therefore possible. On dry surfaces or surfaces that are exposed to sunlight, the virus is only infectious for a short while.

What symptoms do the patients show?

The disease develops as a sudden fever, accompanied by malaise, fatigue and aching limbs. As the disease progresses, patients may show additional symptoms, such as stomach pain, nausea, vomiting and diarrhoea. Other symptoms may include headaches and reddening of the conjunctiva as well as pain in the chest, abdomen, joints and muscles. Some patients also suffer from internal and external bleeding. In serious cases, the kidneys, liver and other organs may fail, often proving fatal for the patient.

What's the incubation period – and how long are you infectious?

The period of time between the appearance of symptoms and an infection with ebolaviruses is at least 2 days and no more than 21 days; 8–9 days is a typical period. Patients are infectious once they develop signs of having the disease and remain so while these signs persist. Transmission in seminal fluid during sexual intercourse is possible for several months afterwards. There is also evidence that following recovery, Ebola viruses can persist for weeks or even months in amniotic fluid, breast milk, intraocular fluid (in the eye) and in cerebrospinal fluid.

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Who is most at risk?

- ▶ People having close contact with someone who is suffering from or has died from Ebola virus disease – such as family members, medical personnel and undertakers – are at risk of infection. This applies in particular in cases where protective measures are inadequate.
- ▶ Gamekeepers and hunters in Africa who come into contact with infected animals or corpses are also at risk.

What should I do if someone falls ill?

- ▶ There is no specific treatment for the disease to date. In Germany, there is a network of special isolation units that satisfy both the technical and the medical requirements for the treatment of Ebola virus disease patients.

How can I protect myself?

- ▶ In Germany, there is no need to take personal precautions against Ebola virus disease. If cases of the disease occur in other countries, then the introduction of the disease to Germany by travellers from affected regions cannot be entirely excluded. Any risk of the disease actually spreading in the German population can be virtually ruled out, however. To stop the disease spreading in the population, strict regulations on the isolation and safe treatment of patients apply in Germany.
- ▶ Currently, there is no vaccine for Ebola virus disease. Various teams are developing vaccines against Ebola virus infections: these projects are at various stages of completion and some have already been introduced.
- ▶ People currently visiting regions where there are cases of Ebola virus disease should inform themselves about the necessary precautions/hygienic measures and recommendations for people returning from abroad. If you exhibit any symptoms on your return and there is a justified reason to suspect Ebola virus disease (if you have had contact with wild animals or patients in high-risk areas, for example), phone your GP with details of your trip and your suspicions before visiting the surgery, so that your GP and his/her team can take the necessary precautions.

Where can I find out more?

Your local health authority can provide you with further advice and information.

Further information (for medical professionals) and recent risk assessments can be found on the Robert Koch Institute website (www.rki.de/ebola).

Please also follow the travel and safety advice for visitors to affected countries provided by the German Foreign Office (www.auswaertiges-amt.de).



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