

MARBURG VIRUS DISEASE

ANIMAL GROUP AFFECTED	TRANSMISSION	CLINICAL SIGNS	FATAL DISEASE ?	TREATMENT	PREVENTION & CONTROL
<i>Cercopithecus aethiops</i>	Aerosol, contact	Fever, anorexia, apathy, weight loss, petechial rash, leukopenia, thrombocytopenia	Yes	None	<i>In houses</i> <i>in zoos</i> Proper quarantine and protective measures.

Fact sheet compiled by Manfred Brack, formerly German Primate Center, Göttingen / Germany.	Last update 22.11.2008
Susceptible animal groups <i>Cercopithecus aethiops</i> (<i>Papio</i> spp. ?). Nonhuman primates and man probably accidentally infected, primary hosts unknown, possibly bats. (<i>Miniopterus inflatus</i> , <i>Rhinolopus eloquens</i> , <i>Rousettus aegyptiacus</i>).	
Causative organism Marburg virus (Filoviridae, Mononegavirales).	
Zoonotic potential Yes – fatal in man.	
Distribution Central- and East Africa. First major outbreak outside laboratories Oct. 1998 – Aug. 2000 in unofficial gold miners in Watsa/Dem. Rep.Congo	
Transmission Aerosol or contact (monkey – man and man – man transmission!).	
Incubation period In monkeys 2 – 6 days, in man 4 – 16 days.	
Clinical symptoms In monkeys: fever, anorexia, apathy, weight loss, petechial rash, leukopenia, thrombocytopenia, elevated aminotransferase levels, raised serum urea and creatinine levels.	
Post mortem findings In monkeys: haemorrhages in lung, liver, spleen, focal necroses in all organs, hepato- and splenomegaly, Feulgen – positive inclusion bodies in hepatocytes.	
Diagnosis Virology: ELISA, immunohistochemistry, electron microscopy, virus isolation, mass tag PCR Serology: indirect immunofluorescence, IgM-capture ELISA, IgG-Elisa, immunoblot.	
Material required for laboratory analysis Blood, serum, tissues (Serum refrigerated, tissue frozen, for electron microscopy and immunohistochemistry fixed).	
Relevant diagnostic laboratories 1. CDC Atlanta / Georgia, USA. 2. NRZ für tropische Infektionserreger am Bernhard-Nocht-Institut für Tropenmedizin, Bernhard Nocht- Str. 74 D 20359 Hamburg, Germany Phone: 040 / 31182-401 Fax: 040 / 31182 – 400 e-mail: Schmitz@rrz.uni-hamburg.de 3. Konsiliarlaboratorium für Bunyaviren und Filoviren, Institut für Virologie, Philipps-Universität Marburg, Robert-Koch-Str.17	



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Treatment

None.

Prevention and control in zoos

Proper quarantine.

Suggested disinfectant for housing facilities**Notification****Guarantees required under EU Legislation****Guarantees required by EAZA Zoos****Measures required under the Animal Disease Surveillance Plan****Measures required for introducing animals from non-approved sources****Measures to be taken in case of disease outbreak or positive laboratory findings****Conditions for restoring disease-free status after an outbreak****Experts who may be consulted**

1. Prof. Dr. B. Fleischer, NRZ, Hamburg,
2. Prof. Dr. H. Schmitz, “ “
3. Prof. Dr. H. Klenk, Konsiliarlaboratorium Marburg

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