

Marburg Virus Disease

Information Sheet for the Public

What is Marburg Virus Disease (MVD)?

Marburg is a rare severe viral hemorrhagic fever (VHF) that can infect humans and primates (apes, monkeys) and is caused by infection with Marburg virus or Ravn virus. The disease starts with sudden fever, rash, and severe bleeding, and can lead to serious illness or death.

The virus, found in sub-Saharan Africa, naturally infects Egyptian rousette bats and can spread from bats to people. Most Marburg outbreaks have occurred in Sub-Saharan Africa. However, the virus has been spread through infected travelers or accidental laboratory infections. For history of recent outbreaks visit: <https://www.cdc.gov/marburg/outbreaks/index.html>.

On September 27 2024, the Republic of Rwanda’s Ministry of Health reported cases of MVD in the country, including in some patients in health facilities. Illnesses have been reported in several provinces around the country. For situational updates on the MVD outbreak in Rwanda, visit: <https://www.cdc.gov/marburg/situation-summary/index.html>.

What are the symptoms of MVD?

Illness begins with a sudden high fever, severe headache, and severe fatigue. Muscle aches and pains are common. Severe watery diarrhea, abdominal pain and cramping, nausea and vomiting usually begin on the third day. Patients appear “ghost-like” with deep-set eyes, expressionless faces, and extreme lethargy.

Severe bleeding from multiple areas of the body occurs between five and seven days. Other mental symptoms include confusion, irritability, and aggression.

How long does it take to show symptoms of MVD after exposure?

The incubation period (interval from infection to onset of symptoms) of MVD varies from two to 21 days but is typically five to 10 days.

How does MVD spread?

Marburg virus spreads person-to-person through direct contact with the blood, organs, or other bodily fluids of infected people, and with surfaces and materials (e.g. bedding, clothing) soiled with these fluids.

Healthcare workers have frequently been infected while treating patients with MVD when infection control precautions are not strictly practiced. Transmission by needle-stick injuries is associated with more severe disease, progressing faster, with possibly higher risk of death.

Who is at risk of getting MVD?

Persons at risk for MVD are those who were exposed through:

- Contact with a symptomatic person suspected or confirmed with MVD, or any objects contaminated by their body fluids,

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Information Sheet for the Public

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- A breach in infection prevention and control precautions that resulted in the potential for contact with body fluids of a patient with a suspected or confirmed MVD,
- Contact with semen from a person who has recovered from MVD,
- Participated in any of the following activities while in an area with active MVD outbreak or where MVD is endemic (<https://www.cdc.gov/travel/notices/level3/marburg-rwanda>):
 - Contact with someone who was sick or died, or any objects contaminated by their body fluids
 - Attending/participating in funeral rituals, including preparing bodies for funeral or burial
 - Working in a healthcare facility or laboratory
 - Visiting a healthcare facility or traditional healer
 - Having contact with bats or wild animals including non-human primates
 - Working or spending time in a mine/cave

What do I do if I have symptoms that look like MVD?

Call your healthcare provider before going to the clinic (or hospital) and inform them about your symptoms and how you were exposed.

How is MVD diagnosed?

It can be difficult to tell MVD apart from other infectious diseases such as malaria, typhoid fever, shigellosis, meningitis and other viral hemorrhagic fevers. Confirmation of MVD requires special laboratory testing of blood, other body fluids, and/or tissues.

How long can a person with MVD be contagious to others?

MVD is not transmitted during the incubation period. MVD cannot spread through the air. However, a person can be potentially contagious for weeks, sometimes months.

Marburg virus has been known to persist in some people who have recovered from MVD, *i.e.* in testicles and the inside of the eye. Male survivors of MVD should practice safer sex practices and hygiene for 12 months, or until their semen tests negative for Marburg virus twice.

In women infected while pregnant, the virus stays in the placenta, amniotic fluid, and fetus. In women who were infected while breastfeeding, the virus may stay in breast milk.

How serious is MVD?

Patients die most often between eight to nine days after they begin to show symptoms, usually from severe blood loss and shock. On average, about one out of two people infected with MVD will die.

Is there treatment or vaccine for MVD?

There is no licensed treatment or vaccine for Marburg. Supportive care such as rehydration with oral or intravenous fluids and treatment of specific symptoms, improves survival.

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Can MVD be prevented?

MVD can be prevented by avoiding contact with blood and body fluids of people who are sick, avoiding contact with semen from a person who recovered from Marburg until testing shows that the virus is gone from their semen, not handling items that may have come in contact with an infected person's body fluids, and avoiding contact with Egyptian rousette bats and non-human primates if in areas where Marburg is found.

For healthcare workers: use standard precautions when caring for patients, regardless of their presumed diagnosis. These include basic hand hygiene, respiratory hygiene, use of personal protective equipment (to block splashes or other contact with infected materials), safe injection practices, and safe and dignified burial practices. When in close contact with patients with MVD, healthcare workers should wear face protection, a clean, non-sterile long-sleeved gown, and practice glove procedures. Depending on their risk exposure in Rwanda, healthcare professionals who have been present in a healthcare facility (including outpatient settings or traditional healers) in Rwanda will either be quarantined or excluded from work duties and non-essential visits (elective surgeries) in a U. S. healthcare facility until 21 days after their last present in a healthcare facility in Rwanda.

Laboratory workers are also at risk. Samples taken from humans and animals for investigation of Marburg infection should be handled by trained staff and processed in suitably equipped laboratories.

What are the travel recommendations?

The Centers for Disease Control and Prevention (CDC) recommends reconsidering nonessential travel to the Republic of Rwanda, which is experiencing an outbreak of Marburg virus disease.

Organizations, such as faith-based, academic, or aid organizations that send U. S. based personnel to Rwanda should consider the following situations and take the following precautions. Travelers cannot travel back to the U. S. if they have MVD or are suspected of having MVD. Coordinate with the U. S. embassy and local health officials to have timely medical evaluation in Rwanda. Travelers should assess possible exposure to MVD and review symptoms before departing Rwanda. Self-monitor for 21 days after leaving the outbreak area for symptoms and notify the health department if symptoms appear.

Travelers from Rwanda to the U. S. will be routed to one of the following three airports: John F. Kennedy International Airport (JFK) in New York, Chicago O'Hare International Airport (ORD) in Illinois, or Washington-Dulles International Airport (IAD) in Virginia. Travelers will be evaluated based upon symptoms and Marburg virus risk exposure history. Public health officials will work with symptomatic travelers to help prevent spread and arrange for laboratory testing. In coordination with health departments, travelers involved with patient care or visited a patient care area will be actively monitored for signs and symptoms. Travelers with exposure to MVD patient also will be actively monitored by health departments. Travelers that attended a funeral or participated in burial work, conducted clinical lab work

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in healthcare settings outside patient care areas, or were exposed to a person suffering from fever but not MVD will have intermittent monitoring for signs and symptoms with their health department.

The U.S. travel recommendations are updated as new information becomes available. Stay up to date on active [travel notices](#).

What is West Virginia doing to protect its residents from MVD?

The West Virginia Department of Health aims to prevent MVD by maintaining surveillance, monitoring the health of travelers returning from the Republic of Rwanda, and supporting public health partners (local health departments, healthcare providers and facilities, emergency responders, etc.) in preparing to respond to reports of MVD.

For more information about MVD, please visit oeeps.wv.gov/vhf/pages/default.aspx

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