

What is Bundibugyo Virus? Disease

Bundibugyo virus disease (BVD) is a rare but severe and often fatal illness caused by the Bundibugyo virus (BDBV), a filovirus in the family Filoviridae, genus Orthoebolavirus. It is one of the four ebolavirus species known to cause human disease (Zaire, Sudan, Bundibugyo, and Taï Forest). Bundibugyo virus was first identified in 2007 during an outbreak of hemorrhagic fever in Bundibugyo District, western Uganda. Subsequent outbreaks have occurred in Uganda and the Democratic Republic of the Congo (DRC). The natural reservoir is presumed to be fruit bats, consistent with other ebolaviruses, though definitive reservoir confirmation remains incomplete. Human infections occur through zoonotic spillover events, followed by human-to-human transmission during outbreaks. Reported case fatality rates for Bundibugyo virus disease (BVD) have ranged from approximately 25–40%, which is generally lower than Zaire ebolavirus but comparable to Sudan virus in some outbreaks. Prior to May 15, 2026, there have only been 2 large outbreaks documented, one in DRC (2012) and the other in Uganda (2007) on the border of DRC. Bundibugyo virus disease typically begins suddenly with symptoms such as fever, fatigue, muscle pain, headache, and sore throat, followed by vomiting and diarrhea. In severe cases, the illness can progress to multiorgan failure, internal and external bleeding, and death. **A person is only contagious once symptoms appear.** Health care workers and caregivers are at high risk without proper personal protective equipment (PPE) and infection control practices.

Clinical Presentation & Disease Summary

Transmission:

- A person becomes infected when their broken skin or mucous membranes in the eyes, nose, or mouth come into contact with:
 - Blood or body fluids from a person who is sick or has died from Bundibugyo virus disease (urine, saliva, sweat, feces, vomit, breast milk, and amniotic fluid). This can include needle-sticks.
 - Objects contaminated with body fluids from a person who is sick or has died of Bundibugyo virus disease (clothes, bedding, needles, and medical equipment)
 - Infected animals like bats, primates, or forest antelopes. It may be spread through hunting, handling, or eating infected animals
 - Semen from a person who has recovered from Bundibugyo virus disease. This can happen through oral, vaginal, or anal sex. There is no evidence of spread through contact with vaginal fluids from someone who has recovered from Bundibugyo virus disease.
- A person sick with Bundibugyo virus disease can only transmit the virus to others once they start having symptoms.

Incubation Period:

- From 2-21 days
- On average, symptoms start 8-10 days after exposure

Symptoms:

- Early stage of Bundibugyo virus disease generally has an abrupt onset of fever and “dry” symptoms, including:
 - Fever
 - Chills
 - Headache
 - Myalgia (aches and pains in muscles and joints)
 - Weakness and fatigue
 - Sore throat
- Mid-late stage of Bundibugyo virus disease is typically 3 to 7 days after symptom onset, where patients can progress to “wet” symptoms that include:

- Loss of appetite
- Unexplained bleeding
 - Bleeding is not universally present, but can manifest later in course as petechiae, ecchymosis or oozing from venipuncture sites, gingival bleeding, epistaxis, hematemesis, melena, mucosal hemorrhage, or blood in stool or vomitus.
 - Manifestation of bleeding can occur 2x more often than during a Sudan virus outbreak (54%)
- Gastrointestinal Symptoms
 - Nausea
 - Abdominal pain
 - Diarrhea
 - Vomiting
- Other symptoms during the mid-late stage of disease include:
 - Chest pain, shortness of breath, headache, or confusion, seizures, eye irritation and redness, **hiccups**, difficulty swallowing
- Those with fatal Bundibugyo disease usually develop more severe clinical signs early during infection and die typically between days 6-16 of complications including multiorgan failure and septic shock.

Complications:

- Hypovolemia, electrolyte abnormalities, hematologic abnormalities, refractory shock, hypoxia, hemorrhage, septic shock, multiorgan failure, and disseminated intravascular coagulation (DIC)
- Mortality
 - Historical CFR approximately 25-40%
 - Mortalities varies by outbreak, supportive care capacity, and early case identification
- Post-Recovery Sequelae
 - Persistent fatigue
 - Arthralgias
 - Ocular complications (uveitis)
 - Neurocognitive symptoms
 - Viral persistence in immune-privileged site (e.g., semen)

Early in illness, Bundibugyo virus disease may resemble non-specific febrile illness (e.g., influenza, COVID-19) or other tropical diseases (e.g., typhoid, malaria). A high index of suspicion is required.

When to Suspect a Patient has Bundibugyo Virus Disease?

Suspect Bundibugyo Virus Disease in any individual who has a sudden onset of one or more symptoms of BVD (listed above) **AND** one or more of the following exposure risk factors within 3 weeks of symptom onset:

- Travel to / residence in a country known to have circulating BVD. Outbreak map located [here](#)
- Known/suspected exposure to ill or dead person with suspected/confirmed BVD, including by:
 - Contact with bodily fluids (e.g., blood, sweat, saliva, urine, vomit, feces, semen) without appropriate PPE
 - Contact with objects contaminated by bodily fluids (e.g., clothing, bedding, equipment) without appropriate PPE
 - Contact with bodily fluids or contaminated objects with appropriate PPE if there is concern for a breach in PPE

- Known/suspected exposure to semen of male recovered from BVD
- Work in a laboratory that handles viral hemorrhagic fever specimens
- Handling wild animals or carcasses that may be infected with orthoebolaviruses (e.g., primates, bats)

Key Steps for Frontline Clinical Staff

- Identify**
- Assess the patient for signs and symptoms, travel history, and epidemiological criteria.
 - For assistance, contact facility Infection Prevention and Control or on-call hospital epidemiologist.
- Isolate**
- Provide a mask to the patient and initiate prompt isolation. Follow [Infection Prevention Guidance](#)
- Inform**
- Notify dept/facility leadership, Infection Prevention & Control, on-call hospital epidemiologist.
 - Notify jurisdictional health department immediately (via the [24-hour Epi-On-Call contact list](#)) and follow jurisdictional protocols for patient assessment.

Infection Prevention and Control

Hand Hygiene

- Perform hand hygiene before and after all patient contact, contact with potentially infectious material, and before putting on and upon removal of PPE, including gloves.
- Use soap and water for at least 20 seconds or use alcohol-based hand rubs. If hands are visibly soiled, use soap and water.

Patient Placement

- Place patient in a single patient **Airborne Infection Isolation Room (AIIR)**. If an AIIR is not available, isolate the patient in a private examination room. Keep the door closed, minimize entry and exit, and avoid entry without appropriate PPE.
 - Keep a **log** of all persons who care for or enter the room or care area of the patient.
- Limit movement of the patient outside of the room. When outside the room, **patient should wear a facemask**.

Transmission-Based Precautions & Personal Protective Equipment

- Adhere to **Standard + Airborne + Contact Precautions**. At minimum for those who do not have bleeding, vomiting, or diarrhea use a respirator, 2 pairs of extended cuff gloves (at minimum, outer gloves should have extended cuffs), fluid-resistant gown that extends to at least mid-calf OR fluid-resistant coveralls without integrated hood, face shield, hood, knee high boot covers. Additionally, an impermeable apron is recommended over gown or coveralls anytime the patient is vomiting or has diarrhea.
 - [CDC VHF PPE: Clinically Stable Patients Suspected to have VHF](#)
 - [CDC VHF PPE: Confirmed Patients and Clinically Unstable Patients Suspected to have VHF](#)
- Follow Donning and Doffing Checklist
 - Example: NYC Health + Hospitals [SP Level 2 VHF PPE Donning and Doffing Checklist](#).
- Ensure a trained observer is present and donned in appropriate PPE (respirator, 2 pairs of extended cuff gloves (at minimum, outer gloves should have extended cuffs), fluid-resistant gown that extends to at least mid-calf OR fluid-resistant coveralls without integrated hood, face shield, hood, knee high boot covers).

Environmental Infection Control

- Orthoebolaviruses are classified as a **Category A infectious substance**: capable of causing permanent disability or life-threatening/fatal disease in humans if exposure occurs. Notify facility EVS. Keep all waste, supplies, or medical equipment in patient room until BDBV is ruled out.

- If BDBV infection is **RULED OUT**, clean and disinfect the patient's care area using an EPA registered disinfectant for appropriate contact times. Management of laundry, food service utensils, and medical waste should also be performed in accordance with routine procedures.
- If BDBV infection is **RULED IN**, all cleaning, disinfection, and transport of waste must be [managed as Category A waste](#). Once the patient vacates a room, all unprotected individuals, including HCP, should not be allowed in that room until sufficient time has elapsed for enough air changes to remove potentially infectious particles and the room has been cleaned and disinfected by designated vendor (if applicable) or staff.

Diagnostic Testing

- **Consultation and approval from jurisdictional health department is required for disease-specific diagnostic testing.** Call jurisdictional health department [24-hour Epi-On-Call contact](#).
- Further information regarding specimen collection can be found here: <https://www.cdc.gov/viral-hemorrhagic-fevers/php/laboratories/specimen-collection.html>

Treatment and Immunization

- There are currently no treatments or vaccines for Bundibugyo virus disease.
- Clinical management of patients with Bundibugyo virus disease should focus on supportive care for complications including volume repletion, maintenance of blood pressure and oxygenation, pain control, nutritional support, and treatment of secondary bacterial infections and pre-existing comorbidities. Large volumes of IV fluids are often required.

Contact: SystemBiopreparedness@nychhc.org

References:

- Centers for Disease Control and Prevention: [Ebola virus disease clinical guidance](#), [Bundibugyo virus outbreak summaries](#)
- World Health Organization: [Ebola virus disease fact sheets](#), [Uganda outbreak situation reports](#)
- [GIDEON](#)
- Feldmann et al. [Ebola](#)
- Journal of Virology Kozak et al: [Ferrets infected with Bundibugyo Virus or Ebola Virus Recapitulate Important Aspects of Human Filovirus Disease](#)
- CDC Wamala JF, et al. [Ebola Hemorrhagic Fever Associated with Novel Virus Strain, Uganda, 2007-2008](#)
- Emerging Infectious Diseases MacNeil A, et al. [Proportion of Deaths and Clinical Features in Bundibugyo Ebola Virus Infection, Uganda](#)