Cercopithecine herpesvirus 1: Of the 35 herpesviruses identified in nonhuman primates, only Cercopithecine herpesvirus 1 (B-virus) is known to be pathogenic for humans. Monkeys of the genus Macaca, which are widely used as animal models for biomedical research, naturally carry B virus. Infection in macaques is lifelong, with periodic, usually asymptomatic reactivation.

Most cases of human B-virus infection have involved direct contact with macaques, such as a bite, scratch, or mucosal contact with body fluid or tissue. Indirect contact, such as injury from a contaminated fomite (e.g., needle puncture or cage scratch), has also resulted in human infection. Human-to-human transmission has been documented in one case; however, further investigation has indicated that the risk for secondary transmission is low.

Human B-virus disease generally occurs within 1 month of exposure, commonly with an incubation period of a few days to a week. The development and progression of disease depend on the site of exposure and the amount of virus inoculated. Disease often starts with general influenza-like symptoms of fever, muscle aches, fatigue, and headache. Other variable symptoms include lymphadenitis and lymphangitis, nausea and vomiting, abdominal pain, and hiccups. Neurologic signs develop when the virus spread to the central nervous system and vary with the part of the brain or spinal cord affected. Hyperesthesias, ataxia, diplopia, agitation, and ascending flaccid paralysis have been described after virus spread to the brain. Virus spread to the central nervous system is an ominous sign; even with antiviral therapy and supportive care, most patients die, and those who survive often have serious neurologic sequelae. Deaths are often attributed to respirator failure associated with ascending paralysis.

According to the CDC guidelines, the most important action in a case of potential exposure to B-virus is to rapidly and thoroughly cleanse the wound or exposure site. HSV can enter sensory nerve endings within 5 minutes of exposure, and B-virus is likely to infect just as rapidly. Bite wounds, scratches, or puncture wounds of nonmucosal surfaces should be cleansed with soap or detergent for at least 15 minutes. The time spent mechanically cleansing the area is more important that the type of cleansing solution used. Mucosal surfaces should be rinsed with sterile saline or running water for 15 minutes. Immediate cleansing or rinsing can inactivate and wash away virus present in the exposure site. After immediately cleansing the wound or exposure area, seek medical attention, specifically from a physician identified as someone familiar with treating B-virus exposure cases.

The potential for fatal human infection with B-virus is a constant concern because frequent exposures occur to humans in the course of caring for and using macaques in a research setting. Personal protective equipment and safe handling procedures have limited the incidence of human disease.