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Customer Information Notice: CIN155

trophon® Efficacy Against Monkeypox Virus

Multiple cases of monkeypox have been reported in several non-endemic countries. Monkeypox is a viral disease with symptoms similar to those seen in smallpox patients, although clinically less severe. Transmission can result from close contact with respiratory secretions, skin lesions of an infected person or recently contaminated objects.

Studies are currently underway to further understand the epidemiology, sources of infection, and transmission patterns of the most recent outbreak.[1]

Susceptibility to disinfectants

Monkeypox virus (MPXV) is a double-stranded DNA virus, a member of the *Orthopoxvirus* genus within the *Poxviridae* family.[1] Orthopoxviruses are enveloped viruses and are therefore within the group of pathogens most sensitive to inactivation by disinfectants.[2] Orthopoxviruses may be less sensitive to organic disinfectants than other enveloped viruses due to their reduced envelope lipid content.[3]

Vegetative bacteria, fungi, non-enveloped viruses and bacterial spores all show sequentially increasing resistance to disinfectants and are harder to inactivate than the enveloped viruses.[2]

trophon disinfectant efficacy

The trophon family includes the FDA cleared trophon EPR and trophon2 high level disinfection devices, which share the same core technology of sonically-activated hydrogen peroxide. trophon is an automated medical device for the high level disinfection of ultrasound probes.

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As a high level disinfection system, trophon inactivates:[4-6]

- enveloped and non-enveloped viruses
- vegetative bacteria
- fungi
- mycobacteria

While trophon has not been directly tested against monkeypox virus, this pathogen falls into the category of enveloped viruses, the most susceptible category of pathogens to disinfectants. trophon has been demonstrated to be effective against enveloped and non-enveloped viruses as well as other organism groups showing higher resistance to disinfectants than enveloped viruses (Figure 1).

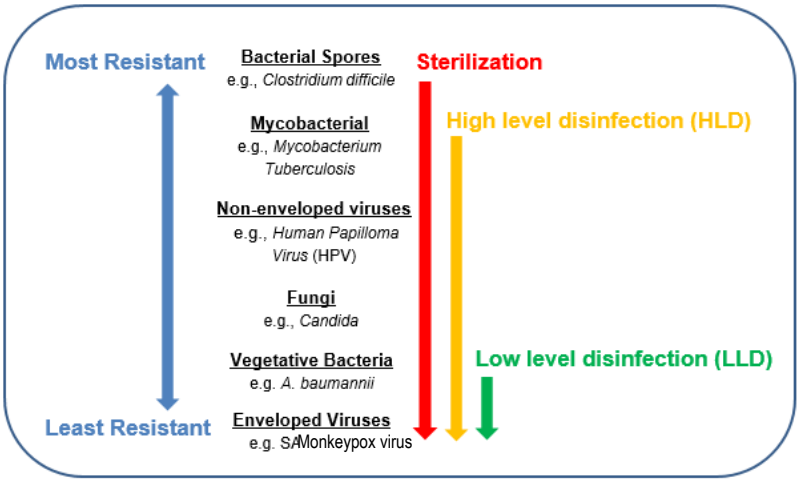


Figure 1. The hierarchy of microbial susceptibility to disinfectants. Adapted from CDC Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008.[2]

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