



Meditizer[™]
Medical-Grade Hand Sanitizer

Note regarding Monkeypox

**Susceptibility of Pox Viruses including
Monkeypox to Disinfection**

Professor Nigel Silman

Susceptibility of Pox Viruses including Monkeypox to Disinfection

Pox viruses are enveloped viruses which differ from many other enveloped viruses in the composition of that outer envelope. Pox virus envelopes contain carbohydrates (sugars) which make them more resistant to disinfection and killing than other enveloped viruses. For this reason, pox viruses are often used as good model systems for disinfection, on the basis that if a disinfectant kills pox viruses, then just about everything else is more susceptible.

With regards to the Meditizer product, given that data have shown that product to be very active against spores of the bacterium *Clostridium difficile* then it is highly probably that pox viruses including MonkeyPox will be successfully killed by the Meditizer product. The closest potential data set involves using ultra-violet radiation (UVC), a commonly used method in hospitals, food-handling and laboratory settings. A recent publication¹, although pox virus susceptibility studies have been reported since 1943, indicate that pox viruses are inherently sensitive to UVC and rapidly killed within 7.6 seconds. This susceptibility further suggests that the Meditizer product is very likely to kill pox viruses, given that UVC does not have any effect on bacterial spores, whereas the Meditizer product is highly effective.

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Professor Nigel J Silman was educated at the Universities of Plymouth and Leicester and has a background in microbial physiology & biochemistry, particularly in relation to control of biochemical and biosynthetic pathways. His research interests include process development of industrial enzymes, pharmaceutical proteins and detection & diagnosis of infectious. He has worked in both academic and industrial settings and has been at Porton Down (UK Government Lead Facility) for the last 19 years. He holds a visiting Chair in Infectious Disease at the University of the West of England, Bristol, leads the biosafety & microbiology training team within PHE.

¹ Mcdevitt, James & Lai, Ka & Rudnick, Stephen & Houseman, Eugene & First, Melvin & Milton, Donald. (2007). Characterization of UVC Light Sensitivity of Vaccinia Virus. Applied and environmental microbiology. 73. 5760-6. 10.1128/AEM.00110-07.