

## Podcast Show Notes

### Monkeypox: Symptoms and Treatment

A member of the *Orthopoxvirus* genus and *Poxviridae* family, the monkeypox virus causes symptoms similar to smallpox, including fever, headache, muscle aches, and exhaustion. Though endemic to parts of central and western Africa, the CDC identified several cases of monkeypox in the United States in late 2021, and officials are continuing to track presumed infections.

From virology to presentation, this podcast episode explores a brief history of the disease, with a focus on diagnosis and patient management for healthcare professionals.

*This CE course is relevant to all healthcare professionals*

#### Episode 1 – Symptoms and Treatment

##### Guest

Daniel Griffin, MD, PhD

- Board-certified in internal medicine and infectious disease
- Expertise in global health, tropical medicine, parasitology, and virology
- International speaker for organizations such as the University of Glasgow, the University of Minnesota, the Peace Corps, the Foundation for International Medical Relief for Children, Floating Doctors, and Remote Care Education
- Podcast co-host of [This Week in Virology](#), [This Week in Parasitism](#) and [Infectious Disease Puscast](#)
- Co-author, *Parasitic Diseases, 7<sup>th</sup> edition*

##### Host

Deborah Martin, DNP, MBA, RN, NE-BC, FACHE

- Director of Learning Innovation, Elite Learning
- Certified nurse executive and fellow of the American College of Healthcare Executives
- More than 25 years in healthcare, including as system director of professional practice and development at a large healthcare system

#### Episode Key Points

- First identified in Copenhagen, Denmark in 1958



- Identified in humans in 1970 in Africa
- Rodents suspected of being a reservoir
- Transmission is through broken skin, the respiratory tract, or mucous membranes
- Incubation is usually 7 - 14 days but can range from 5 - 21 days
- Clinical presentation is a fever and a characteristic rash; the skin eruption phase follows the onset of fever by 1 - 3 days.
- For many it is self-limiting, but can have complications including pneumonia, trouble breathing, and skin superinfections.
- Patient management is supportive care focused on supportive care, hydration, skin care, antivirals, post-exposure vaccine, and immune globulin.

## References

- Alakunle, E., Moens, U., Nchinda, G., & Okeke, M.I. (2020). Monkeypox virus in Nigeria: Infection biology, epidemiology, and evolution. *Viruses*, 12(11),1257. <https://doi.org/10.3390/v12111257>
- Centers for Disease Control and Prevention. (2022a). *Monkeypox*. <https://www.cdc.gov/poxvirus/monkeypox/index.html>
- Centers for Disease Control and Prevention. (2022b). *Monkeypox: Clinical recognition*. <https://www.cdc.gov/poxvirus/monkeypox/clinicians/clinical-recognition.html>
- Centers for Disease Control and Prevention. (2003). Multistate outbreak of monkeypox-Illinois, Indiana, and Wisconsin, 2003. *MMWR Morb Mortal Wkly Rep*, 52(23), 537-40. (<https://www.ncbi.nlm.nih.gov/pubmed/12803191>).
- Grosenbach, D.W., Honeychurch, K., Rose, E.A., Chinsangaram, J., Frimm, A., Maiti, B., Lovejoy, C., Meara, I., Long, P., & Hruby, D.E. (2018). Oral tecovirimat for the treatment of smallpox. *The New England Journal of Medicine*, 379(1), 44-53. <https://doi.org/10.1056/NEJMoa1705688>.
- Huhn, G. D., Bauer, A. M., Yorita, K., Graham, M. B., Sejvar, J., Likoas, A., Damon, I. K., Reynolds, M. G., & Kuehnert, M. J. (2005). Clinical characteristics of human monkeypox, and risk factors for severe disease. *Clinical Infectious Diseases*, 41(12), 1742-51. <https://doi.org/10.1086/498115>.
- Karem, K. L., Reynolds, M., Braden, Z. Lou, G., Bernard, N., Patton, J., & Damon, I. K. (2005). Characterization of acute-phase humoral immunity to monkeypox: use of immunoglobulin M enzyme-linked immunosorbent assay for detection of monkeypox infection during the 2003 North American outbreak. *Clinical and Vaccine Immunology*, 12(7), 867-72. <https://doi.org/10.1128/CDLI.12.7.867-872.2005>.

Ladnyj, I.D., Ziegler, P., & Kima, E. (1972). A human infection caused by monkeypox virus in Basankusu Territory, Democratic Republic of the Congo. *Bulletin World Health Organization*, 46(5), 593-597.

Likos A.M., Sammons, S.A., Olson, V.A., Frace, A. M., Li, Y., Olsen-Rasmussen, M., Davidson, W., Galloway, R., Khristova, M.L., Reynolds, M.G., Zhao, H., Carroll, D.S., Formenty, P., Esposito, J.J., Regnery, R. L., & Damon, I. K. (2005). A tale of two clades: monkeypox viruses. *Journal of General Virology*, 86(10), 2661-2672. <https://doi.org/10.1099/vir.0.81215-0>.

U.S. Food and Drug Administration. (2019, September 24). *FDA approves first live, non-replicating vaccine to prevent smallpox and monkeypox*. <https://www.fda.gov/news-events/press-announcements/fda-approves-first-live-non-replicating-vaccine-prevent-smallpox-and-monkeypox>

World Health Organization. (2022, May 21). *Multi-country monkeypox outbreak in non-endemic countries*. <https://www.who.int/emergencies/disease-outbreak-news/item/2022-DON385>

## Resources

<https://www.cdc.gov/poxvirus/monkeypox/index.html>

<https://www.who.int/emergencies/disease-outbreak-news/item/2022-DON385>

<https://www.mass.gov/news/massachusetts-public-health-officials-confirm-case-of-monkeypox>

<https://www.cdc.gov/poxvirus/monkeypox/clinicians/clinical-recognition.html>

<https://www.npr.org/sections/goatsandsoda/2022/06/02/1102199023/opinion-media-coverage-of-monkeypox-paints-it-as-an-african-virus-that-makes-me->

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