Potential Exposure to Person with Confirmed Human Monkeypox Infection — United States, 2021

Summary
The Centers for Disease Control and Prevention (CDC), in collaboration with the Texas Department of State Health Services and Dallas County Health and Human Services, is investigating a single case of monkeypox virus infection in a U.S. citizen who resides in the United States and recently returned from travel to Nigeria. The patient traveled to Dallas from Lagos, Nigeria, via Atlanta on two separate flights during July 8-9, 2021. The patient presented to an emergency department in Dallas, Texas on July 13 for complaints of a rash that began on July 7, one day prior to travel. Testing at Dallas County and CDC confirmed the presence of monkeypox virus. CDC is working with the airlines to share information with state and local health officials to contact airline passengers and others who may have been in contact with the patient during two flights: Lagos, Nigeria, to Atlanta on July 8, with arrival on July 9; and Atlanta to Dallas on July 9. CDC is issuing this health advisory to ask clinicians to consider a diagnosis of monkeypox in people who present with a febrile prodrome followed by rash and who may have had direct or indirect contact with the patient.

Background
Monkeypox is endemic to several Central and West African nations. Recent cases outside of Africa either reported recent travel to one of these countries or contact with a person with confirmed monkeypox.

Symptoms of monkeypox most often begin with a prodrome of fever and other non-specific symptoms such as malaise, headache, and muscle aches following an average incubation period of 5-13 days. After the prodrome, which lasts approximately one to three days, a generalized rash appears. Nearly all patients with monkeypox have had fever early in illness onset and prior to the rash onset. Although
lesions often begin on the face before spreading to other parts of the body, there has been at least one report of lesions beginning in the groin region. Lesions progress through specific stages—macules, papules, vesicles, and pustules—before scabbing and falling off\(^1\). The rash appearance of monkeypox is very similar to that of smallpox, including a centrifugal distribution and lesions on the palms and soles. Monkeypox can occur concurrently with other rash illnesses, including varicella-zoster virus and herpes simplex virus infections. Case fatality ranges between 1 and 10%. Laboratory confirmation of monkeypox is performed using real-time polymerase chain reaction (PCR) on lesion material.

A person is considered infectious beginning five days prior to rash onset and is presumed to remain infectious until lesions have crusted, those crusts have separated, and a fresh layer of skin has formed underneath. Human-to-human transmission is thought to occur primarily through large respiratory droplets. Respiratory droplets generally cannot travel more than a few feet, so prolonged face-to-face contact is required. Transmission can also occur by direct contact with body fluids or lesion material. Indirect contact with lesion material through fomites has also been documented. Animal-to-human transmission may occur through a bite or scratch, preparation of wild game, and direct or indirect contact with body fluids or lesion material.

There is no specific treatment for monkeypox virus infection, although antivirals developed for use in patients with smallpox may prove beneficial\(^2\). Persons with direct contact (i.e., exposure to the skin, crusts, bodily fluids, or other materials) or indirect contact (e.g., presence within a 6-foot radius in the absence of an N95 or filtering respiratory for ≥ 3 hours) with a monkeypox patient should be monitored by health departments; some persons may be candidates for post\(^1\)-exposure prophylaxis with smallpox vaccine after consultation with public health authorities.

**Recommendations for Clinicians**

- If clinicians identify patients with a constellation of signs and symptoms that could be monkeypox, a travel history should be solicited. Monkeypox should be considered in patients with unexplained onset of fever, chills, new rash, or new lymphadenopathy, and a history of 1) air travel from Lagos Murtala Muhammed International Airport, Nigeria, to Hartsfield-Jackson Atlanta International Airport on July 8 with arrival on July 9, 2) air travel from Atlanta to Dallas Love Field Airport on July 9, or 3) presence in those airports on July 8-9.
- Patients with suspected monkeypox should be isolated in a negative pressure room, and all personnel should wear personal protective equipment (PPE) in accordance with recommendations for standard, contact, and airborne precautions\(^3\). All healthcare workers (e.g., clinical staff and environmental staff) caring for a patient with suspect or confirmed monkeypox should be communicated the importance of maintaining proper isolation precautions so that infection is not transmitted to them or others.
- Clinicians should consult their state health department or CDC’s monkeypox call center through the CDC Emergency Operations Center (770-488-7100) as soon as monkeypox is suspected.

**Recommendations for Health Departments**

- If monkeypox is suspected by the health department, then CDC should be consulted through the CDC Emergency Operations Center (770-488-7100).
  - After consultation with CDC, samples can be sent to CDC or an appropriate Laboratory Response Network for confirmatory testing by PCR\(^4\).
  - Send all specimens through the state/territorial public health department, unless authorized to send directly to CDC.

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1. *Clinical Recognition of Monkeypox*
2. *Antivirals*
3. *Infection Control Measures in Hospitals*
4. *U.S. Laboratory Response Network*
• Ideal specimens for laboratory testing include lesion fluid, lesion roof, scabs, and crusts. Serum and whole blood can also be collected. Best practices are to collect multiple specimens from different locations on the body. Detailed specimen submission instructions are available at CDC's monkeypox website¹.

**Recommendations for the Public**

• Individuals who may have had contact with a suspect or confirmed monkeypox case should contact their health department for a risk assessment.

**For More Information**

• Contact your local health department if you have any questions or suspect a patient may have monkeypox.

  - **CDC**
    - [CDC-INFO](https://www.cdc.gov) or 1-800-232-4636
    - CDC 24/7 Emergency Operations Center (EOC): 770-488-7100

**References**

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**Categories of Health Alert Network messages:**

- **Health Alert**: Requires immediate action or attention; highest level of importance
- **Health Advisory**: May not require immediate action; provides important information for a specific incident or situation
- **Health Update**: Unlikely to require immediate action; provides updated information regarding an incident or situation
- **Info Service**: Does not require immediate action; provides general public health information

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¹ Preparation and Collection of Specimens

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*The Centers for Disease Control and Prevention (CDC) protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.*