

Traveler Summary

Key Points

- Monkeypox is a viral infection that occurs in Central and West Africa, which is acquired through direct contact with bodily fluids, secretions, and lesion material from infected persons or animals or through consumption of inadequately cooked contaminated meat from infected animals (bush meat).
- Risk exists for travelers going to affected countries and is increased for those who engage in risk behaviors (e.g., contact with infected persons, animals (live or dead), or rodent droppings or handling or consuming bush meat).
- Symptoms include fever, chills, headache, and blistering rashes, which begin on the face and may spread to other body parts.
- Consequences of infection include bacterial infections, dehydration, and brain inflammation. Death may occur in about 10% of cases.
- Prevention includes avoiding risk behaviors.
- Jynneos (available as early as late 2020), a vaccine that is safe for use in all adults regardless of health status, is given as a 2-dose schedule, 4 weeks apart.
- Vaccine side effects include headache, nausea, tiredness, and injection-site reactions.
- Duration of vaccine protection following a completed series is about 2 years. A booster dose interval has not been determined.

Introduction

Monkeypox is a viral disease similar to smallpox but milder and mainly transmitted from infected animals to humans or from infected humans to other humans. All cases of monkeypox have been acquired in Africa, except for an outbreak in the U.S. due to imported African rodents and a hospital-acquired case in the U.K. A vaccine has recently been approved for the prevention of both monkeypox and smallpox in adults.

Risk Areas

Monkeypox most commonly occurs in the Democratic Republic of the Congo (> 1,000 cases per year), but recent outbreaks have been occurring in tropical rainforests in the Congo basin and West Africa, including Cameroon, Central African Republic, Liberia, Nigeria, Republic of the Congo, and Sierra Leone. The number of cases in affected areas is increasing, likely due to waning immunity from previous smallpox vaccination (which provided cross-protection against monkeypox) and closer contact between humans and animals as a result of population movement, civil unrest, deforestation, and climate change. Exported cases in foreigners living in or visiting Nigeria have been reported since 2018.

Transmission

Monkeypox is mainly transmitted from animals to humans through direct contact with droplets (bodily fluids, respiratory secretions, or lesion material) or droppings from infected animals, especially rodents (dead or alive) and is spread to humans through bites, scratches, or intact skin or through consumption of inadequately cooked contaminated bush meat. Human-to-human transmission (usually requiring prolonged face-to-face contact) occurs mainly through inhalation of infected respiratory droplets or contact with bodily fluids, lesion material, or contaminated clothing from infected persons.

Risk Factors

Risk for travelers going to affected areas includes:

- Living, working, or participating in recreational activities in proximity to infected persons or animals
- Living in forested areas
- Handling rodents (dead or alive) or having contact with rodent droppings in accommodations in affected areas
- Handling or consuming bush meat
- Sleeping on the floor in affected areas

Other risk factors include lack of smallpox vaccination, proximity to infected persons (including sleeping in the same room/bed), and contact with infected bodily fluids.

Symptoms

Not all persons infected with monkeypox virus have symptoms; however, in most cases, symptoms most commonly appear 6 to 16 days (range: 5-21 days) following exposure and include fever, chills, extreme tiredness, headache, and muscle aches. A few days after the fever appears, a blistering rash (lesions numbering from a few to several thousand) often begins on the face (most affected) and spreads to other parts of the body (especially the palms, soles, and mouth) and may last for about 2 to 4 weeks. Rashes may also appear on the genitals and inside the eyelids. Although symptoms of monkeypox may be similar to that of smallpox, monkeypox infection usually causes milder disease.

Consequences of Infection

Complications can include bacterial infections, difficulty breathing, pneumonia, inability to eat due to painful lesions in the mouth, dehydration (from vomiting and diarrhea), eye involvement, and brain inflammation and enlarged lymph nodes. Death occurs in about 10% of symptomatic cases in Africa (mostly among young children).

Need for Medical Assistance

Travelers who develop symptoms of monkeypox, especially persons with weakened immune systems, should seek immediate medical attention. Treatment is mainly supportive, and hospitalization may be required. Antivirals, if given as soon as possible, may reduce the duration and severity of illness in severe cases.

Prevention

Nonvaccine

Avoid handling or consuming bush meat and avoid direct contact with rodents (including rodent droppings) or other infected animals (sick or dead). Avoid contact with infected persons (who should be in isolation in a medical facility), blood or bodily fluids from such persons, or materials (e.g., clothing) that have been in contact with an infected animal or person. Practice rigorous disinfection techniques in case of accidental contact with infected animals or humans.

Vaccine

Jynneos, a vaccine (containing a live, nonreplicating, weakened virus) that provides protection against both monkeypox and smallpox, is expected to be available by prescription for adults as early as late 2020. Although this is a live vaccine, the vaccine virus is unable to replicate in the human body to cause illness and can be safely used by all adults regardless of health status, including persons with weakened immune systems.

Smallpox vaccines stockpiled by public health authorities may also provide protection against monkeypox disease, although none are licensed for this indication or commercially available.

Side Effects

The most common vaccine side effects of Jynneos include injection-site reactions (redness, pain, swelling, and itching), as well as tiredness, headache, muscle aches, nausea, and, rarely, chills or fever. Serious side effects are rare.

Persons with underlying medical conditions or who have concerns about the vaccine should speak to their health care provider before vaccine administration.

Timing

The primary series of Jynneos consists of 2 doses, given 4 weeks apart to persons 18 years and older.

Duration of vaccine protection following a completed primary series is about 2 years. A booster dose interval has not been determined.

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