

## **Exotic Pets and Monkeypox**

- **Monkeypox in humans**
- **Monkeypox in animals**
- **How to avoid monkeypox**

### **History**

For the second time in 20 years an outbreak of monkeypox is occurring in the United States and at least 20 other countries. Monkeypox virus is closely related to human smallpox virus; however, monkeypox can occur in both humans and several other mammals.

In humans, symptoms include fever, headache, muscle spasms, shivering, and fatigue. Lymph nodes behind the ear, below the jaw, in the neck, or the groin may be enlarged. A rash follows these symptoms that causes blisters and then crusts over. The blisters and crusts occur often in the mouth, on the face, hands, feet, genitals, and eyes. The time from exposure to appearance of the signs of illness is about 12 days and the duration of the disease is usually 2 to 4 weeks. Untreated monkeypox can be lethal in up to 10% infected humans. Complications can include pneumonia, encephalitis, and loss of vision.

Monkeypox was first discovered in laboratory monkeys in Denmark in 1958. The monkeys were originally wild in Malaysia. Monkeys are not a natural reservoir for the virus. Rodents, particularly Gambian pouched rats, dormice, and African squirrels are probably the reservoir in Africa.

In 2003 an outbreak occurred in the United States that was traced to a Texas exotic animal broker who imported exotic pets, including Gambian pouched rats and 5 other species of African rodents, three of which carried monkeypox. Some of the rodents were housed near prairie dogs at an Illinois vendor's facility. Exposed prairie dogs in the asymptomatic incubation period were sold in Midwestern states. Seventy one human cases in 6 midwestern states were identified. All were exposed to pet prairie dogs. Exposure occurred by handling sick rodents or their bedding. None of the humans died. The importation of African rodents into the U.S. is now prohibited. Rabbits are susceptible to monkeypox but proof of transmission to humans from rabbits has not been documented.

The transmission of monkeypox can be from handling bushmeat, an animal bite or scratch, body fluid contaminated objects such as animal bedding, or close contact with an infected person. Transmission by sexual intercourse appears to be occurring in some of the currently infected humans.

Cross immunity between monkeypox and smallpox occurs. Up until 1980, all people in the U.S. were vaccinated against smallpox. Most probably have at least partial immunity to monkeypox. The Centers for Disease Control recommend that all people who may come in proximity to a human or animal with monkeypox wear a gown, goggles, and N95 face mask.

Although the risk of dying from monkeypox may be less than 10%, a month of illness, the need to be isolated, and complications such as pneumonia, blindness, or facial scarring are worth avoiding whenever possible. The chance of wild rodents or rabbits becoming endemic reservoirs for monkeypox in the U.S. is a concern..

### **Our Recommendations for Prevention**

1. Always wash your hands after handling rodents and rabbits or their bedding
2. Signs of monkeypox in rodents and rabbits vary. Gambian pouched rats have mild signs. Prairie dogs and rabbits may have fever, cough, runny nose, sore eyes, poor appetite, swollen lymph nodes, patchy hair loss, and a rash with small bumps with yellow fluid that break and form crusts. All rodents and rabbits showing these signs or found dead should be avoided and reported to your veterinarian.
3. Never keep prairie dogs or wild rodents as pets.
4. Any rabbits or rodents from pet stores or exotic animal swaps should be isolated for 6 weeks.

If you have comments or you're interested in particular subjects contact us at [atCBC@BetterAnimalHandling.com](mailto:atCBC@BetterAnimalHandling.com)

Now let's recap the key points to remember from today's episode:

- 1. Monkeypox can be carried and transmitted by humans and rodents or their bedding.**
- 2. People vaccinated against smallpox (prior to 1980) are probably immune.**
- 3. Prairie dogs and other wild rodents should not be kept as pets.**

More information on animal handling is available in my book, *Animal Handling and Physical Restraint*, published by CRC Press. You might also be interested in my *Concise Textbook of Small Animal Handling*. Both are also available on Amazon and from many other fine book supply sources.

Additional information is available at: [www.betteranimalhandling.com](http://www.betteranimalhandling.com)

Don't forget, serious injury or death can result from handling and restraining some animals. Safe and effective handling and restraint requires experience and continual practice. Acquisition of the needed skills should be under the supervision of an experienced animal handler.

