

### THE VIRAL CYCLE OF THE MPOX VIRUS

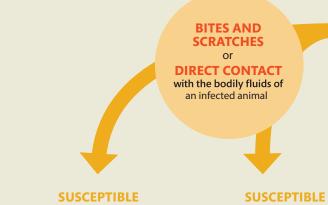


The Mpox virus is an **Orthopoxvirus** 

**HUMAN EPIDEMIC** 

Suspected reservoir hosts of the Mpox virus

### **WILD RODENTS**





Mainly squirrels of the genera Funisciurus spp. and Heliosciurus spp.

**BITES AND SCRATCHES** or **DIRECT CONTACT** with the bodily fluids of an infected animal

**WILD ANIMALS** 





Exotic pets (rabbits, prairie dogs) are susceptible to infection and can be

carriers.

intermediate or incidental hosts





#### **TRANSMISSION**

through the upper respiratory tract by inhalation of aerosolized or implanted virus

#### **CONTACT**

with fluids contained in maculopapular pustules



Monkeys and great apes develop similar

symptoms to

humans









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## THE VIRAL CYCLE OF THE MPOX VIRUS



**MPOX**, or simian orthopoxvirosis, is a zoonotic disease caused by a virus of the family *Poxviridae* (*Orthopoxvirus*) of the same genus as human smallpox. It is transmitted to humans by mammals such as monkeys, and more particularly by rodents. Mpox virus is enzootic in the tropical rainforests of Central and Western Africa.

## UNDERSTANDING THE MPOX VIRUS CYCLE



#### **SPECIES AFFECTED**

Humans, monkeys and wild rodents (squirrels, giant rats...) but all mammals can be considered as susceptible.



#### **RESERVOIR**

The wild animal reservoir is unknown, but there are suspicions that rodents are involved: some species of squirrels, Gambia rats, striped mice and other small mammals



#### **MODES OF TRANSMISSION**

**Transmission from animals to humans** occurs by direct inoculation via bites and scratches, by direct contact with the body fluids of infected animals when hunting, or by preparing carcasses for meals.

**Person-to-person transmission** occurs via the upper respiratory tract by the inhalation of the aerosolised virus or by inoculation through the skin through contact with fluids contained in maculopapular pustules.



#### **ENVIRONMENTAL FACTORS**

Constant contact with forested areas is a risk factor for human exposure to the animal reservoir.

#### **WARNING SIGNS IN ANIMALS**



Some species are asymptomatic, especially those suspected of being reservoirs (rodents). Some species, such as great apes, show human-like rashes.

Photo : Kamilla Pléh © Tai Chimpanzee project

#### **WARNING SIGNS IN HUMANS**

- 1 Incubation period: 6-16 days
- Invasive period (0-5 jours): fevers, respiratory symptoms, severe headache, adenopathy, myalgia and severe asthenia.
- 3 Rash period (1-3 days after fever): a rash often starts on the face and spreads to other parts of the body, palms and soles, oral mucosa, genitals and conjunctiva.
- Skin lesions usually progress through papular, vesicular, pustular and crusted phases over a period of 14 to 21 days.

# WHAT TO DO ABOUT A SUSPECTED ANIMAL CASE

- **ENSURE GOOD COORDINATION** between Wildlife Services, Veterinary Services and Public Health Services.
- 2 ADHERENCE TO GOOD PERSONAL PROTECTION PRACTICES (gloves, protective clothing).
- **TAKE SAMPLES** if possible and send to the national veterinary or reference laboratory.
- 4 NOTIFY WOAH BY EMAIL OR FAX OR VIA WAHIS of any significant animal health information (including mpox) as described in Article 1.1.5 of the Terrestrial Code.

# WHAT MESSAGES TO CONVEY TO COMMUNITIES AT RISK

- **WASH YOUR HANDS** after contact with infected animals or humans and after handling bushmeat.
- **AVOID CONTACT** with animals that may be infected with the virus.
- Sick wild animals or those dead of unknown causes **SHOULD NOT BE HANDLED OR EATEN.**
- NEVER CONSUME food containing animal blood nor raw or poorly cooked bushmeat.
- **IMMEDIATELY** inform the Veterinary or Wildlife Services if a sick or dead wild animal is found.
- **GO TO THE NEAREST HEALTH CENTRE** as soon as possible in case of a scratch or bite.