
Tanapox

Frequently Asked Questions

1. What causes Tanapox?

Tanapox is a rarely diagnosed zoonosis (i.e. infection from an animal to a human), that is caused by *Tanapox virus* (TANV). TANV belongs to the Poxviridae family of viruses, but is very different from other poxviruses that have been associated with human disease (including cowpox, mpox, smallpox, molluscum contagiosum and orf). The virus was first described following tanapox epidemics in 1957 and 1962 in the Tana River Valley of Kenya.

2. Where does Tanapox occur?

Tanapox is endemic to Africa. Over a 40-year period from 1957 to 2003, human tanapox cases were sporadically identified across equatorial and tropical regions of Africa (Democratic Republic of Congo, Kenya, Republic of Congo, Sierra Leone, Tanzania). In 2022, the first human case identified in South Africa was in a traveller to the Kruger National Park (24° south of the equator). This is the southernmost record for this disease, as previously, all reported human cases were associated with exposures within 10° north or south of the equator. In 2024, eleven cases of tanapox were identified in people in a subtropical area of the Kruger National Park. In 2026, two cases (one laboratory-confirmed) were identified in northern Zambia [unpublished data].

3. How could I get tanapox?

Natural TANV circulation occurs amongst wild non-human primates, with the virus being mechanically transferred from infected individuals by culicine mosquitoes (i.e. through contaminated mouthparts). Humans are incidental primate hosts, when they are in a wildlife area in proximity to both infected wild primates and breeding mosquitoes. Environmental conditions necessary for mosquito population increase (high rainfall, warm temperatures) are related to a high risk of TANV infection for humans (if there are infected wild primates in the vicinity). To date, all South African cases have been reported in late summer (February, March). Transmission from primates to humans has only occurred in the laboratory environment (through direct inoculation from infected animals through scratches). No definitive cases of human-to-human or fomite transmission have yet been reported.

4. What are the symptoms associated with tanapox?

Tanapox presents as a mild febrile illness with 1-3 pox lesions appearing at the exposure site/s up to seven days after inoculation by a mosquito. During the prodromal period, patients have reported malaise, fever (>37.5 °C for 1-4 days), severe headache, fatigue and myalgia.

Lesions generally occur on exposed body parts not covered by clothing (hands, forearms, lower legs). Initially, the inoculation site (mosquito bite) might be itchy, but as the pox lesion develops, it becomes increasingly painful. A lesion begins as a papule (small, discoloured, raised area with prescribed border) that enlarges, usually with inflammation and oedema or swelling of the surrounding skin. This then develops into either a large, solid nodule (1-2 cm) with a distinct depression in the middle (umbilication), or into a crusted ulcer (1 cm) with a raised rim and a shallow central depression. Lymph glands nearest the lesions may become swollen, there may be extensive inflammation around the lesion area, and in some cases a viral exanthem has been recorded (often on the torso, but also associated with the area of lesion inflammation). Nodules and ulcers usually heal spontaneously within 6-8 weeks, leaving some scarring of the skin.

5. Who can get tanapox?

TANV infection can occur in people of any age or sex. There is no data on tanapox in immuno-compromised individuals.

6. How is tanapox treated and prevented?

Although tanapox causes discomfort, anxiety and the lesions can be unsightly, the infection is not life-threatening (no deaths have been associated with tanapox) and lesions heal without intervention. There is no specific treatment for tanapox, nor is there a vaccine against TANV. Vaccination against smallpox (and/or mpox), does not protect against TANV.

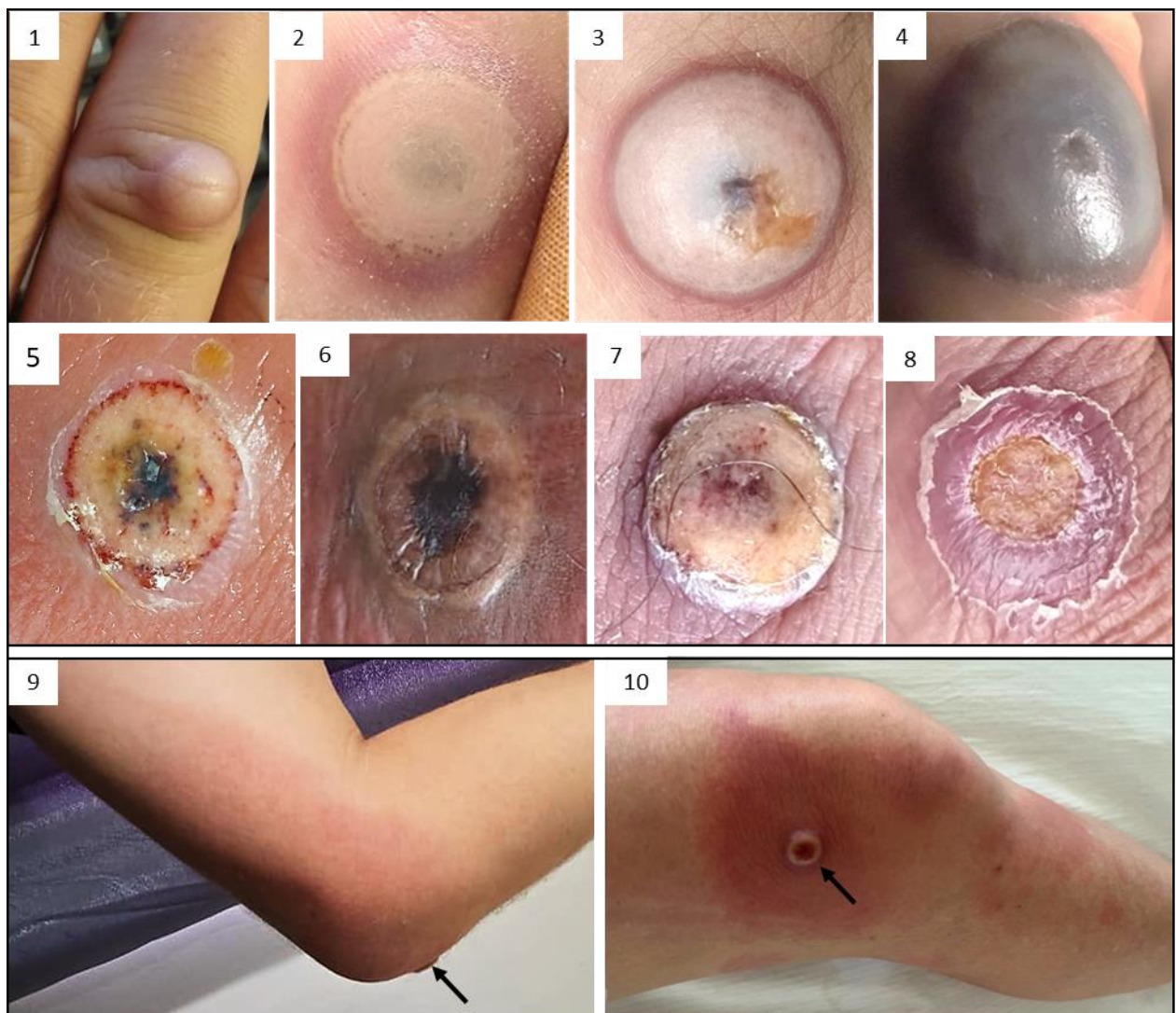
Tanapox lesions are not pus-filled (infrequently there is serous exudate), and do not require antibiotic treatment unless there is clinical/laboratory-confirmed evidence of a superinfection.

The use of mosquito repellents is recommended when there is a risk of mosquito exposure. Use the repellents as directed by the manufacturer. Other mosquito avoidance measures, such as wearing light and loose clothing can further reduce the risk of exposures to arthropod-borne diseases. When diagnosed with tanapox, cover lesions loosely with cotton bandage to prevent abrasions and to avoid possible secondary infections.

7. How is tanapox diagnosed?

Tanapox is suspected in patients presenting with lesions that may be in keeping with a diagnosis of tanapox. The diagnosis may be investigated through laboratory testing at the National Institute for Communicable Diseases. Testing involves PCR for the detection of viral DNA in dry swab/s collected from the lesion/s. Other tests such as histology and electron microscopy may also be useful.

8. What does a tanapox lesion look like?



1-8: stages in the development of tanapox lesions from the first appearance of a solid nodule, the enlargement and flattening of the nodule which becomes surrounded by erythematous inflammation, the swelling of the lesion and development of the central 'dent' (umbilication), and the gradual ulceration and drying of lesions. This process occurs over a period of at least 6 weeks.

9,10: two examples of the lesion-associated inflammation (arrows indicate lesions).

Some of these images have been published in *Emerging Infectious Diseases* 2023; 29(6): doi.org/10.3201/eid2906.230326

Other than these ad hoc reports of the disease, little is known about the natural ecology and epidemiology of the disease

9. **Where can I find more information?**

- Laboratory results and queries:

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- Clinical queries (Healthcare workers only):

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