

11 May 2023

## Zoonoses (diseases from animals) in travellers

**A zoonotic disease is one that spreads between animals and humans and has the potential to be an increasing problem for travellers**

When a disease in animal populations jumps to infect humans this can result in human disease and localised outbreaks [1]. If human-to-human transmission of the infection occurs, this may escalate to more widespread disease in humans, may result in sustained global human-to-human transmission and spread around the world as seen in pandemics such as Human Immunodeficiency Virus (HIV), Mpox (previously known as monkeypox) and Severe Acute Respiratory Syndrome (SARS) [2].

There are known to be over 200 types of zoonoses which include bacterial, viral, and parasitic diseases. These can spread to humans through direct contact, respiratory aerosol/droplets inhalation, food, water, environmental contamination, or via vectors such as mosquitoes or flies [1]. The majority (60 percent) of infectious diseases that are reported globally are zoonotic in origin, and 75 percent of emerging infectious organisms which cause diseases in humans originated in animals [3]. Prior to the COVID-19 pandemic in 2020, there were nearly 60,000 deaths a year from rabies. Other zoonotic diseases such as dengue, Zika, Crimean-Congo haemorrhagic fever pose additional threats [4].

Newly emerging, or re-emerging, zoonoses are reported on the [NaTHNaC Outbreak Surveillance database](#) and include diseases such as [Ebola virus disease](#) [5], [Marburg virus disease](#) [6], [Mpox](#) [7] and [Nipah virus](#) [8]. In addition, diseases such as [dengue](#) may be reported when identified in new regions of the world e.g. in 2010 locally acquired dengue was reported in some areas of southern France for the first time [9].

Some other zoonoses travellers should consider depending on their travel plans, include the vaccine-preventable diseases such as [rabies](#) [10], [Japanese encephalitis](#) [11], [yellow fever](#) [12], insect-borne diseases such as [malaria](#) [13] or rickettsial diseases (e.g. Rocky Mountain spotted fever) [14] and others such as [leptospirosis](#) (following contact with infected rat urine) [15] and [avian influenza](#) (following contact with infected birds) [16].

The risk to travellers from zoonotic infections is dependent on several factors including known infection risks at the travel destination(s), activities to be undertaken, and steps taken by travellers to reduce their risk of infection such as vaccination, insect and tick bite precautions, food and water hygiene, and avoidance of certain food stuff such as bushmeat (further information provided below).

A [list of selected zoonotic diseases and typical way they are transmitted to humans](#) is available.

Country-specific information can be found on our [Country Information pages](#) and [Outbreak Surveillance section](#).

## Advice for travellers

### Before you travel

Check our [Country Information pages](#) to research general health risks, prevention advice and any vaccine recommendations or malaria advice for your destination and make sure you get comprehensive [travel health insurance](#).

Check and follow the advice from the [Foreign, Commonwealth & Development Office](#) on safety, security, and any travel restrictions at your destinations.

### **While you are away**

- Pay careful attention to personal and [hand hygiene](#).
- Follow [food and drink safety recommendations](#), avoid handling, cooking or eating bush/wild meat.
- Use [insect and tick bite precautions](#) during both day and night.
- Minimise animal contact, avoid touching, petting or feeding wild or domestic animals. Any animal bite, scratch or saliva contact should be scrupulously washed with soap and water, and urgent medical attention sought.
- Avoid close physical contact with people who are sick; regular hand washing should be carried out following unavoidable contact.

### **When you return**

Seek medical attention if you are unwell after returning from your trip. Remember to tell your nurse, doctor or other healthcare provider about your recent travel and destinations.

## **Advice for health professionals**

Health professionals advising those who plan to travel, can check our [Country Information pages](#) for vaccine recommendations and specific risk advice.

Health professionals should consider the possibility of a travel-related illness in those presenting with a fever, flu-like illness, unusual gastrointestinal symptoms or skin rash. The [Imported Fever Service](#) provides clinical advisory and specialist diagnostic service for medical professionals managing travellers who have returned to the UK with fever.

If a travel-related infection is suspected, this should be discussed urgently with your local microbiology, virology or infectious diseases consultant, giving a full travel/clinical history. They may advise that appropriate samples are sent for testing to [specialist laboratory facilities](#) in the UK.

## **Resources**

- [Country Information](#)
- [Outbreak Surveillance](#)
- [Public Health England. List of zoonotic diseases](#)
- [Centers for Disease Prevention and Control. Zoonotic diseases](#)

## **References**

1. [World Health Organization. Zoonoses Factsheet 20 July 2020. \[Accessed 9 May 2023\]](#)
2. [UK Parliament. Preventing emerging zoonoses. 7 January 2022. \[Accessed 9 May 2023\]](#)
3. [World Health Organization. Regional Office of the Eastern Mediterranean. Zoonotic disease: emerging public health threats in the Region. \[Accessed 9 May 2023\]](#)

4. [World Health Organization. News. FAO, OIE launch a guide for countries on taking a One Health approach to addressing zoonotic diseases. \[Accessed 9 May 2023\]](#)
5. [World Health Organization. Ebola disease caused by Sudan ebolavirus – Uganda.14 January 2023. \[Accessed 9 May 2023\]](#)
6. [World Health Organization. Disease Outbreak News. Marburg virus disease – Ghana. 22 July 2022. \[Accessed 9 May 2023\]](#)
7. [World Health Organization. Situations. Mpox \(monkeypox\) outbreak 2022 – Global. \[Accessed 9 May 2023\]](#)
8. [Alam A. Nipah Virus, an emerging zoonotic disease causing fatal encephalitis. Clin Med \(Lond\) 2022 Jul; 22\(4\):348-352. \[Accessed 9 May 2023\]](#)
9. [Cochet A, Calba C, Jourdain F et al. Autochthonous dengue in mainland France, 2022: geographical extension and incidence increase. Euro Surveill 2022; 3 Nov; 27\(44\). \[Accessed 9 May 2023\]](#)
10. [Public Health England. Rabies: epidemiology, transmission and prevention. 2 July 2019. \[Accessed 9 May 2023\]](#)
11. [Australian Government Department of Health and Aged Care. Health Alert Japanese encephalitis \(JEV\) 29 February 2023 \[Accessed 9 May 2023\]](#)
12. [Centers for Disease Control and Prevention. CDC Yellow Book 2020: Health Information for International Travel. New York: Oxford University Press:2017. \[Accessed 9 May 2023\]](#)
13. [Anstey N and Grigg M. Zoonotic malaria: the better you look, the more you find. The Journal of Infectious Diseases 2019; 1 March, 5: 679-681. \[Accessed 9 May 2023\]](#)
14. [BMJ Best Practice Rickettsial diseases 3 February 2021. \[Accessed 9 May 2023\]](#)
15. [BMJ Best Practice. Leptospirosis. 7 July 2022. \[Accessed 9 May 2023\]](#)
16. [NaTHNaC News Item. Avian influenza infection and international travel. 25 November 2021. \[Accessed 9 May 2023\]](#)