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Insect and tick bite prevention

A reminder for international travellers about insect bite precautions

As international travel continues to open up, travellers are reminded about the risk of insect and tick-borne illnesses worldwide and the importance of good insect and tick bite prevention.

Depending on the destination, travellers may be at risk of mosquito spread infections e.g. [chikungunya](#), [dengue](#) and [malaria](#). Ticks and sandflies can also spread infections in travellers.

Some mosquito and tick spread infections, for example; [Japanese encephalitis](#), [tick-borne encephalitis](#) and [yellow fever](#) can be prevented by the appropriate vaccines. However, most tick and insect spread infections are not vaccine preventable.

Worldwide chikungunya and dengue cases have increased significantly in recent decades [1, 2]. It is estimated that over three quarters of the world's population now live in countries reporting widespread chikungunya infection [3] and approximately half the world's population are now at risk of dengue, with an estimated 100 to 400 million infections every year [2].

Chikungunya and dengue are not common in mainland Europe, but local outbreaks have been reported during the summer and autumn months in recent years [4, 5]. Each year travel-associated cases of chikungunya, dengue, [Zika](#) and malaria are reported in the United Kingdom (UK).

Most cases of chikungunya and dengue reported in the UK are in travellers who visited the Caribbean, the Indian sub-continent, South American and South East Asia [6]. The majority of dengue cases reported are associated with travel to Southern and South-Eastern Asia. Cases are also reported in travellers who visited Africa, the Caribbean and Central and South America [7].

Following a widespread outbreak of Zika in the Americas and the Caribbean in 2015, there have been small numbers of cases reported in the UK in returning travellers [8].

Most cases of malaria in the UK report travel to Africa, with the majority travelling to West Africa. Every year malaria deaths are reported in UK in travellers who visited risk countries. In 2019, fifteen fatal malaria cases were reported in the UK. Fourteen of these deaths were travellers who visited Africa; the remaining death was in a traveller who visited Southern Asia [9].

Advice for travellers

See our [Country Information](#) pages "vaccine recommendations" and "other risks" sections to check if there is a risk of insect and or tick spread infections at your destination. All travellers visiting affected areas are at risk.

Risk can be reduced by following [insect bite precautions](#). Chikungunya, dengue and Zika are spread by day-biting mosquitoes, so particular care with bite avoidance is advised during the day, especially around dawn and dusk [1, 2]. However, some insects are active at night and other illnesses, such as Japanese encephalitis and malaria, are spread by night biting mosquitoes. Following careful bite avoidance advice is recommended at all times; day and night [10, 11]. Insect and tick bite avoidance remains important, even if an illness is vaccine preventable.

If you are visiting malaria risk areas, you must follow all the important steps for [malaria prevention](#) and take any recommended antimalarials, including completing the course of malaria prevention tablets on your return home.

If you develop symptoms such as fever, severe headache or a rash after visiting countries with known or suspected risk of insect spread illness you must seek urgent medical attention, informing the health professional of any recent travel abroad.

Advice for health professionals

Health professionals should consider the possibility of insect borne illness in returning UK travellers presenting with a fever or flu-like illness who recently visited risk regions. All individuals being assessed for possible [COVID-19](#) must be asked if they have travelled abroad to assess the risk of other infections such as malaria, chikungunya and dengue.

Health professionals who suspect chikungunya, dengue or other insect/tick borne illness in a returned traveller should send appropriate samples for testing (with full travel and clinical history) to the [UK Health Security Agency \(previously Public Health England\), Rare and Imported Pathogens Laboratory](#).

Resources

- [Diseases transmitted by insects and ticks in Europe](#)
- [Diseases transmitted by insects and ticks in the Americas](#)
- [European Centre for Disease Prevention and Control: Chikungunya worldwide overview](#)
- [UK Health Security Agency: Zika virus: country specific risk](#)

References

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7. [UK Health Security Agency \(formerly Public Health England\). Dengue fever: annual report. Last updated 26 November 2015. \[Accessed 17 March 2022\]](#)
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9. [UK Health Security Agency \(formerly Public Health England\). Malaria imported into the United Kingdom: 2019. June 2021. \[Accessed 17 March 2022\]](#)
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