

Dengue

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Dengue is an infection caused by the dengue virus of which there are four different types (serogroups) DENV-1, DENV-2, DENV-3 and DENV-4. The disease is spread through the bite of an infected mosquito. The mosquitoes that spread dengue usually breed in urban areas close to human habitation and are most active during daylight hours. Although unpleasant, dengue is usually a self-limiting illness. However, a small, but significant, number of people can develop more life-threatening infection (severe dengue).

The disease is common in the tropics. Affected areas include the Caribbean, South and Central America, Africa, Asia and the Pacific Islands. Although less common, outbreaks are increasingly being reported outside tropical areas, including in Europe, with locally acquired cases reported in Croatia, France, Italy, Madeira and Spain.

Dengue does not occur naturally in the United Kingdom (UK) but is reported in travellers returning from dengue affected areas. Cases of dengue in UK travellers are increasing, with most reported in travellers who visited Asia, Central and South America or the Caribbean. Country-specific information on dengue is available on our [Country Information pages](#) and current dengue outbreaks are listed on our [Outbreak Surveillance](#) section.

All travellers to dengue endemic countries are at risk of dengue infection. The chance of becoming infected with dengue is determined by several factors, including destination, length of exposure and season of travel. Risk is thought to be higher during periods of intense mosquito feeding activity (two to three hours after dawn and during the early evening). Travellers, who spend long periods in areas where dengue is common, are at increased risk, but even short-term visitors can be infected.

Approximately 40 to 80 percent of people infected with dengue remain symptom-free. If symptoms do occur, the illness usually begins abruptly with a high fever, and is often accompanied by a severe headache, muscle and joint pain, nausea, vomiting and a rash. Most infections are self-limiting, with a rapid recovery three to four days after the rash appears.

A small number of people develop more severe illness with symptoms which can include dangerously low blood pressure (shock), fluid build-up in the lungs and severe bleeding. There is no specific drug treatment for severe dengue illness, although hospital admission and careful management of fever, fluid balance and pain can help with recovery. If left untreated, severe dengue illness can be fatal. With good medical care, death due to severe dengue is typically less than one percent.

Prevention

Travellers can check our [Country Information pages](#) for information on the risk of dengue at their destination. Mosquito [bite avoidance](#) is recommended. As dengue is spread by day-biting mosquitoes, particular care with bite avoidance is advised during the day, especially around dawn and dusk.

A vaccine, Qdenga®▼ has been licensed in the UK for the prevention of dengue disease in individuals from 4 years of age.

The UK Joint Committee on Vaccination and Immunisation (JCVI) has advised that Qdenga®▼ vaccine can be considered for individuals aged 4 years of age and older who have had dengue infection in the past and are:

- planning to travel to dengue where there is a risk of dengue infection or areas with an ongoing outbreak of dengue

or

- exposed to dengue virus through their work, for example, laboratory staff working with the virus.

Exceptionally, vaccination can be considered in those who have not had dengue in the past. In these situations, further expert advice should be considered.

Blood tests for previous dengue infection may not be 100 percent reliable and assessment must be made of previous tests for dengue, likely exposure and clinical history. In the UK, tests for previous dengue infection are usually offered privately, (a fee is charged to the individual being tested). Guidance on investigating previous dengue infection and use of Qdenga®▼ is available in the [UKHSA 'green book' Immunisation against infectious disease, dengue chapter](#).

Qdenga®▼ is a live vaccine (it contains live, attenuated dengue virus) and cannot be given to travellers who are immunosuppressed (have a weakened immune system), pregnant or breastfeeding. This vaccine is also contraindicated (cannot be given) for those with hypersensitivity to any component of the vaccine and for children under four years of age.

Resources

- More detailed information on can be found in our [dengue factsheet](#)
- [UKHSA: Dengue: guidance, data and analysis](#)
- [UKHSA: Dengue chapter 'green book' Immunisation against infectious disease](#)
- [Joint Committee on Vaccination and Immunisation \(JCVI\): Minutes of meeting 7 February 2024](#)
- [World Health Organization \(WHO\): Fact sheets: dengue and severe dengue](#)