FACTSHEET DENGUE

Expertenkomitee für Reisemedizin
Comité d'experts pour la médecine des voyages
Comitato di esperti per la medicina di viaggio
Expert committee for travel medicine

Key aspects briefly summarized

- Dengue fever is the world's most common insect-borne infectious disease.
- Great attention should be paid to mosquito protection (day-biting mosquito)!
- The disease can cause high fever, muscle and joint pain, and skin rash. In rare cases, bleeding may occur.
- There is no specific treatment. Vaccination is recommended only for persons with evidence of previous dengue infection.
- For personal safety, we strongly recommend that you inform yourself in detail about dengue.

Disease

Dengue fever is the most common insect-borne infectious disease worldwide. There are four known serotypes of dengue virus, so it is possible to be infected with dengue more than once. Approximately 1 in 4 infected individuals develop symptoms of dengue, resulting in high fever, muscle and joint pain, and skin rash. In rare cases, most often after a second infection, life-threatening bleeding and shock (severe drop of blood pressure) may occur.

Occurrence / Risk areas

Dengue fever occurs in all tropical and subtropical regions between latitudes 35°N and 35°S (see also CDC map: https://www.cdc.gov/dengue/images/areaswithrisk/Dengue-World-Map.jpg).

Transmission

Dengue virus is transmitted mainly by the day- and dusk-active mosquitoes *Stegomyia (Aedes) aegypti* and *Stegomyia (Aedes) albopictus*. These mosquitoes breed in small water puddles, as they are often found around residential buildings or at industrial zones / waste dumps of human settlements. The main transmission season is the rainy season.

Symptoms

In 3 out of 4 cases, an infection with the virus remains asymptomatic. After a short incubation period (5-8 days), 1 out of 4 infected people present an abrupt onset of fever, headache, joint, limb and muscle pain, as well as nausea and vomiting. Painful eye movement is also typical. A rash may appear on the 3rd or 4th day of illness. After 4 to 7 days, the fever subsides but fatigue may persist for several days or weeks.

In rare cases, severe dengue can occur. Particularly susceptible are local children and seniors, as well as people who have experienced a prior dengue infection. Tourists very rarely present with severe dengue. In the first days, severe disease resembles the course of classic dengue fever, then on the 4th/5th day, and usually after the fever has subsided, the condition worsens. Blood pressure drops, and patients complain of shortness of breath, abdominal discomfort, nosebleeds, and mild skin or mucosal hemorrhages. In the most severe cases, life-threatening shock may occur.

Treatment

There is **no specific treatment** for dengue virus infection. Treatment is limited to mitigation and monitoring of symptoms: fever reduction, relief of eye, back, muscle and joint pain, and monitoring of blood clotting and blood volume. Patients with severe symptoms must be hospitalized.

For the reduction of fever or pain, remedies with the active ingredient **paracetamol or acetaminophen** are recommended (e.g. Acetalgin® Dafalgan®). Drugs containing the active ingredient acetylsalicylic acid (e.g. Aspirin®, Alcacyl®, Aspégic®) must be avoided.

No guarantee can be given for the accuracy and completeness of the medical information, nor can any liability be accepted for any damage that may occur.

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Prevention

Effective mosquito protection during the day and **especially during twilight hours (i.e. sunset)** is the best preventive measure:

1. **Clothing**: Wear well-covering, long-sleeved clothing and long trousers, and treat clothing with **insecticide** beforehand.
2. **Mosquito repellent**: Apply a mosquito repellent to uncovered skin several times a day.
3. **Environmental hygiene**: Do not leave containers with standing water (coasters for flower pots, etc.) in your environment to avoid mosquito breeding sites.

For further information, please refer to the factsheet on "Mosquito and tick bite protection".

Note on the dengue vaccine Qdenga®:

- Based on the data available, many European countries, as well as the Swiss Expert Committee for Travel Medicine (ECTM), currently recommend vaccination with Qdenga® **only for travelers who have evidence of a previous dengue infection** and who will be exposed in a region with significant dengue transmission, for details see LINK. A consultation with a specialist in tropical and travel medicine is recommended.
- About 1 in 4 vaccinated persons experience malaise and fever for a few days about 1-2 weeks after vaccination.

Consistent mosquito protection during the day (see above) is still considered the most important preventive measure against dengue!

Of note

- Do not take any products containing the active ingredient acetylsalicylic acid (e.g. Aspirin®, Alcacyl®, Aspégic®) if you have symptoms, as they increase the risk of bleeding in the event of a dengue infection!
- However, do not stop taking medications containing acetylsalicylic acid if it is already part of your regular treatment for an underlying condition.

Further Information

- Vaccination against Dengue fever for travellers – Statement of the Swiss Expert Committee for Travel Medicine, an organ of the Swiss Society for Tropical and Travel Medicine, July 2024, LINK.
- Dengue Map (Center for Disease Control and Prevention – CDC): https://www.cdc.gov/dengue/images/areaswithrisk/Dengue-World-Map.jpg
- Tigermücke, SwissTPH
- www.tiger-platform.eu

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