

Key aspects briefly summarized

- Dengue fever is the world's most common insect-borne infectious disease.
- Great attention should be paid to mosquito protection during the day!
- The disease can cause high fever, muscle and joint pain, and skin rashes. In rare cases, bleeding may occur. There is no specific treatment.
- 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 4 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/areaswithrisk/around-the-world.html>).

Transmission

Dengue virus is transmitted mainly by day- and dusk-active mosquitoes, namely *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. Eye movement pain is also typical. A rash usually appears on the 3rd or 4th day of illness. After 4 to 7 days, the fever finally 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 extremely rarely present with severe dengue. In the first days, the disease resembles the course of classic dengue fever, but 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 hospitalised.

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.

Prevention

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

1. **Clothing:** Wear well-covered, long-sleeved clothing and long pants and spray clothing with **insecticide** beforehand (see factsheet "prevention of arthropod bites").
2. **Mosquito repellent:** Apply a mosquito repellent to uncovered skin several times a day (see factsheet "prevention of arthropod bites").
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 dengue vaccines:

two vaccines against dengue are on the market: Qdenga® and Dengvaxia®. The Qdenga® vaccine was approved by the European Union in December 2022.

However, due to the data available, many European countries, as well as the Swiss Expert Committee for Travel Medicine (ECTM), currently recommend vaccination with Qdenga® only for certain travelers and in special situations. Consultation with a specialist in tropical and travel medicine is therefore recommended.

Of note:

- Qdenga® is **not** yet licensed in Switzerland and the recommendations for travelers will be limited once Qdenga® is licensed in Switzerland.
- The vaccine Dengvaxia® is not a vaccine for travelers.

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®, Alcaacyl®, Aspégic®) if you have symptoms, as they increase the risk of bleeding in the event of a dengue infection!

Further Information

Dengue Map (Center for Disease Control and Prevention – CDC):

<https://www.cdc.gov/dengue/areaswithrisk/around-the-world.html>