



Dengue fever

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Key facts

- Dengue is a viral infection that spreads from mosquitoes (chiefly *Aedes aegypti* and *Aedes albopictus*) to people.
- The incidence of dengue has grown dramatically around the world in recent decades with an unexpected spike dengue case recorded in 2023 affecting over 80 countries in all regions of WHO. Now, about half of the world's population is now at risk of dengue with an estimated 100–400 million infections occurring each year.
- Dengue is found in tropical and sub-tropical climates worldwide, mostly in urban and semi-urban areas. However, the disease is now endemic in more than 100 countries in the WHO Regions of Africa, the Americas, the Eastern Mediterranean, South-East Asia and the Western Pacific.
- The Americas, South-East Asia and Western Pacific regions are the most seriously affected, with Asia representing around 70% of the global disease burden. However, dengue is spreading to new areas in Europe, the Eastern Mediterranean and South America.
- The increasing risk of spread of the dengue epidemic has been attributed to several factors which include the changing distribution of the vectors, especially in countries with no records of dengue; the consequences of El Niño phenomena in 2023 and climate change leading to increasing temperatures and high rainfall and humidity; fragile health systems in the midst of the COVID-19 pandemic; and political and financial instabilities in countries facing complex humanitarian crises and high population movements.

Transmission: vector-borne (mosquito)

- Bites of infected mosquitoes (mostly spread by daytime biting mosquitoes)
- Other transmission modes exist but these rarely cause epidemics (for example during blood transfusion or vertical mother-child transmission)

Most vulnerable to severe consequences

- Newborns
- Children
- Elderly

Most vulnerable to contracting the disease

- People living or working near mosquito-breeding sites (stagnant water)

Symptoms

- Fever
- Headache and/or pain behind the eyes (sometimes)
- Muscle and joint pain (sometimes)
- Nausea and vomiting (sometimes)
- Swollen glands (sometimes)
- Rash (sometimes)

Symptoms of severe dengue

- Abdominal pain (especially an ache in the right side)
- Fast breathing
- Bleeding (especially in the mouth or nose, or blood found in vomit or stool)
- Extreme tiredness
- Restlessness

What can you do to prevent and control an epidemic?

Vector control and prevention

- Initiate elimination of mosquitos and breeding sites
 - Remove standing water and apply larvicides
 - Promote community clean-up campaigns to remove rubbish and cover water containers
- Prevent mosquito bites by advocating the use of:
 - Insecticide-treated curtains or screens on windows and doors
 - Personal protection (application of repellents, wearing long sleeved clothes)
 - Insecticide-treated bed nets for children and others who sleep during the day
- Monitoring the community and identifying sick people

Treatment and management

- There is no specific treatment for dengue and the focus is usually on managing the symptoms
- Rapidly refer severe cases to health facilities
- Refer all pregnant women with suspected infection to health facilities
- Provide psychosocial support to the sick person and their family members

Social mobilization and health promotion

- Find out the specific advice being given by health and other relevant authorities
- Model following this advice and inform community members of current health practice advice
- Offer support and encouragement to follow the advice
 - Try to gain understanding about if and why health practice advice is not being followed
 - With the guidance of your supervisor and health authorities, work with communities to overcome barriers to following health advice and recommended practices

Mapping and community assessment

- Make a map of the community.
- Mark the following information on the map:
 - How many people have fallen sick with dengue? Where?
 - How many people have died? Where? When?
 - Who and where are the vulnerable people?
 - Where are the local health facilities and services? (include traditional healers)
- Record the following information on the back of the map:
 - When did people start to fall sick with dengue?
 - How many people have become severely ill (see symptoms of severe dengue)? Where?
 - How many people live in the affected community? How many are children under five years?
 - Do people generally cover their water containers (inside and outside)? Who is responsible for the maintenance of containers for household drinking water and for vessels to do laundry; is it women or men?
 - How does the community usually remove standing, stagnant water?
 - How common is it for people to live in houses with insect screens on windows and doors?
 - How common is it for people who sleep during the daytime (for example babies and children) to sleep under insecticide-treated bed nets?
 - Are nets hung up and maintained properly?
 - If people are not using nets, why not?
 - Are children badly affected by dengue? Are there other groups (specific ages, occupations, geographic areas, etc.) that are badly affected?
 - What are the community's habits, practices and beliefs regarding use of repellents, sprays, etc?

- Have the authorities established a vector control programme?
- Is a social mobilization or health promotion programme in place?
- Which sources do people use/trust the most for information?
 - Are there rumours or misinformation about dengue? What are the rumours?
- Who spends more time in the household during the day (and is more exposed to the mosquito bite)? Women, or men, or both?

Other resources

Zika, dengue and chikungunya toolkit: [Zika, dengue and chikungunya toolkit | IFRC](#)

[WHO – World Health Organization; Dengue and severe dengue; 2024](#)