

# Dengue

Dengue fever is a viral disease spread only by certain mosquitoes – mostly *Aedes aegypti* or "dengue mosquitoes", which are common in tropical areas around the world. Towns in north Queensland that have *Aedes aegypti* are prone to outbreaks of dengue when the virus is brought in by travellers. While some towns in central and south Queensland also have dengue mosquitoes, they have had no dengue outbreaks in recent years.

Between outbreaks, Australia is free of dengue fever, but continuous efforts to control the mosquitoes are needed to keep it that way. Local *Aedes aegypti* are not normally infected with the virus, unless they have bitten a person sick with dengue.

There are four types of dengue virus, numbered 1 to 4. After infection, a person is immune only to that particular type. Further infections with a different type have a higher chance of severe or complicated dengue.

## Signs and Symptoms:

Typical symptoms may include:

- sudden onset of fever, extreme tiredness
- intense headache (especially behind the eyes)
- muscle and joint pain (ankles, knees and elbows)
- loss of appetite, vomiting, diarrhoea, abdominal pain, a metallic taste
- flushed skin on face and neck, fine skin rash as fever subsides
- red rash on arms and legs, itching, peeling of skin and hair loss
- minor bleeding (nose or gums) and heavy menstrual periods.

The illness lasts up to a week. In some cases, fever and possibly worse symptoms may return for another two to three days. Dengue ranges from mild or unnoticed (more often in children), to severe or even fatal cases. Complications include shock (collapse from internal fluid loss) and haemorrhage (heavy bleeding).

## Treatment:

- See a doctor immediately if you or anyone in your family have symptoms of dengue.
- Rest at home. Make sure you get enough to drink, even if you cannot eat.
- Avoid mosquito bites so you don't spread the disease - use insect repellent and coils or plug-in mosquito repellent devices inside. Stay in a screened or air-conditioned room where possible.
- Have someone stay home to look after you.
- Use paracetamol (alone or with codeine) for pain. Don't exceed the recommended dose.
- Avoid aspirin, ibuprofen or other anti-inflammatory drugs - they increase the chance of bleeding.

Ring or visit your doctor if you get worse and experience any of the following:

- unable to drink
- unexpected bleeding or bruising
- severe abdominal pain or vomiting
- confusion, with restlessness or drowsiness
- collapse or signs of shock; pale, cold, clammy or blotchy skin; weak pulse.

Some people with dengue need urgent hospital treatment for complications such as shock or haemorrhage. Deaths are rare in Australia.

## Prevention and Control

In all dengue-prone areas - get rid of breeding sites:

- Dengue mosquitoes are different to bush or swamp mosquitoes - they breed in containers and junk. Remove all breeding sites around your home and workplace.
- Dengue mosquitoes develop in anything that holds water at home: pot plant bases, buckets, tarpaulins, tyres, vases, coconut shells, blocked gutters, and even palm fronds. Neglected rainwater tanks, boats, tubs or pools can breed thousands of dengue mosquitoes.
- Check in and around your home every week. Throw out old containers or store them in a dry place. Clean out roof gutters and tip out any containers (or empty and scrub them).

Travelling to, or living in, a place with dengue - avoid mosquito bites:

- Dengue mosquitoes bite quietly, during the day. Use mosquito coils or plug-in mosquito repellent devices inside. Screen living and sleeping areas.
- Wear long sleeved, light coloured clothing, and cover your feet.
- Use insect repellent containing DEET (diethyl toluamide) or picaridin and reapply according to the label.

Dengue outbreak in your home or suburb - kill dengue mosquitoes:

- Dengue mosquitoes sneak into houses and hide. Use surface spray insecticide - in dark hiding places, behind and under furniture and curtains, in and under the house. Repeat the spray monthly.

If you may have dengue fever - see a doctor and get tested:

- Infected dengue mosquitoes near your home could target your family or neighbours.
- See your doctor immediately for a dengue fever test.
- If you do have dengue, your local council and Queensland Health can stop it spreading further in your neighbourhood. They use traps, insecticide house sprays and a non-toxic product in water that stops wrigglers' development.

## Transmission:

Dengue (*Aedes aegypti*) mosquitoes only live and breed around humans and buildings, and not in bush or rural areas. They bite during the day – mainly mornings and evenings. After feeding on blood, females lay eggs in artificial containers containing water. The eggs hatch into 'wrigglers' or larvae, which develop into adult mosquitoes over a week or two. It's hard to identify different species of mosquito without a microscope.

Dengue mosquitoes are not born with dengue virus in them, but if one bites a sick person having the virus in their blood, that mosquito can pass it on to another human after about a week. This time gap for the virus to multiply in the mosquito means that only 'elderly' females transmit dengue fever. The mosquitoes remain infectious for life, and can infect several people.

People get sick three to fourteen days after a bite from an infected dengue mosquito. Then, while sick with dengue (from the day before fever up to 12 days after), another bite could give the virus to a new dengue mosquito. This could start the next cycle of disease weeks later. Dengue does not spread directly from person to person.

## Help and assistance:

- For enquiries or if you may have dengue fever, contact a [public health unit](https://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units) (<https://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units>): (07) 4226 5555 (Cairns) or (07) 4433 6900 (Townsville)
- For queries or complaints about local mosquito control contact your local council.
- See the Queensland Health website: [Mosquito borne diseases and dengue](https://www.health.qld.gov.au/public-health/topics/infection-control/mosquito-borne-dengue) (<https://www.health.qld.gov.au/public-health/topics/infection-control/mosquito-borne-dengue>) (<http://www.health.qld.gov.au/dengue>)