

Mosquito borne Virus and Fevers

The three viruses and one parasitic worm that currently occur in Queensland are Dengue, Ross River, Barmah Forest Viruses and Dog Heartworm.

Dengue Virus

Dengue causes illness that can range from a mild fever to a severe, even fatal condition. Some people, particularly young children, may have no symptoms; however, most adults and older children get sick. The disease lasts about a week. Typical symptoms include: sudden onset of fever, intense headache (especially behind the eyes), muscle and joint pain (ankles, knees and elbows), loss of appetite, vomiting, diarrhoea, abdominal pain, a metallic taste in the mouth, flushed skin on face and neck, fine red skin rash as fever subsides, rash on arms and legs, severe itching, peeling of skin and hair loss, minor bleeding (nose or gums) and heavy menstrual periods, extreme fatigue. A small proportion of cases can progress to severe dengue (sometimes called dengue haemorrhagic fever and dengue shock syndrome), which can occur in both adults and children. A rapid deterioration can occur 2-5 days after onset of fever. The complications of severe dengue can lead to collapse and sometimes death.

Ross River Virus

Ross River fever is caused by a viral injection, transmitted through mosquito bites. Symptoms include fever, rash and joint pains. Prevention relies on avoiding mosquito bites. Many people who are infected with the virus will never develop symptoms.

- Some people will have flu-like symptoms that include fever, chills, headache and aches and pains in the muscles and joints.
- Some joints can become swollen, and joint stiffness may be particularly noticeable in the morning.
- Sometimes a rash occurs on the body, arms and legs. The rash usually disappears after 7 to 10 days.
- A general feeling of being unwell, tired or weak may also occur at times during the illness.
- Symptoms usually develop about 7-10 days after being bitten by an infected mosquito.
- The majority of people recover completely in a few weeks. Others may experience symptoms such as joint pain and tiredness for many months.

Barmah Forest Virus

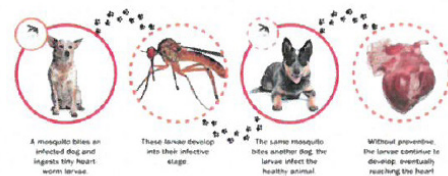
Barmah Forest virus is transmitted to people by being bitten by a mosquito that is infected with the virus. Symptoms include:

- Fever, chills, headache and muscle pain.
- Joint swelling, stiffness and pain, especially in the mornings.
- A rash, usually on the trunk or limbs. The rash usually lasts for 7-10 days.
- A feeling of tiredness or weakness.

Symptoms usually develop about 7-10 days after being bitten by an infected mosquito. Many people with the infection do not develop any symptoms of the disease. The majority of people with Barmah Forest virus infection recover completely in a few weeks. Others may experience symptoms such as joint pain and tiredness for many months.

Dog Heartworm

Dog Heartworm affects cats, foxes, domestic and wild dogs. But is not transmissible to humans. See separate fact sheet.



Asian Tiger Mosquito and Dengue Mosquito

Research indicates that the Asian Tiger Mosquito *Aedes albopictus* will reach mainland Australia with the threat of Zika and Chikungunya becoming real. It is also a vector of Dengue and this mosquito tolerates colder climates than our North QLD Dengue Mosquito *Aedes aegypti*. The threat of Dengue, Zika and Chikungunya could include the east coast of Australia as far south as Tasmania. This species appears to be able to adapt to climate and potentially spread throughout all cities. The Dengue Mosquito *Aedes aegypti* would also be a vector for Zika and Chikungunya virus.

Zika Virus

Most people experience a very mild infection without any complications.

However, it is now known that Zika virus may be passed from a woman to her unborn baby. This can cause potentially serious consequences for the baby, in particular a condition called microcephaly (a small head and brain). Microcephaly is just one of the signs and symptoms of congenital Zika virus syndrome (CZVS) that can be present at birth or appear later in infancy such as seizures (fits), irritability, swallowing problems, hearing and sight abnormalities.

There is also strong scientific agreement that Zika virus can cause a rare paralysing condition called Guillain-Barre Syndrome (GBS). This condition has been found in areas where Zika virus outbreaks are occurring and in cases of individual travellers returning from affected countries. GBS is known to be caused by other viruses and bacteria such as well.

Chikungunya

Chikungunya is a viral disease that is spread to humans by mosquitoes. It was first described in 1952 in Tanzania (in East Africa). Outbreaks and epidemics have since been reported from many African countries, as well as from Indian Ocean island nations, the Indian subcontinent, South East Asia and, more recently, the Pacific region and Caribbean.

Chikungunya has been diagnosed in travellers from affected countries who have recently arrived in Australia. Although locally-acquired chikungunya has not been detected in Australia (to the end of June 2014), mosquitoes capable of transmitting chikungunya virus occur in north Queensland, Torres Strait and some locations in central and southern Queensland.

Symptoms typically start 3 to 7 days (up to 12 days) after a person is bitten by an infected mosquito.

An abrupt onset of fever is usually accompanied by joint pains (arthralgia), swelling and stiffness. Other common symptoms include headache, muscle pains, nausea, fatigue and sometimes a rash on the trunk and limbs which may last for 7 to 10 days. Most people feel better within a week but joint pains associated with chikungunya may be debilitating, and may last for prolonged periods. Most patients recover fully, but in some cases joint pains can persist for months or years.

Occasionally, more severe complications such as heart and nervous system conditions can occur, particularly in older people who have other pre-existing medical conditions. Sometimes the symptoms in infected people are mild and may go unrecognised, or the disease may be misdiagnosed as another cause of fever and joint pain, such as dengue, Ross River or Barmah Forest Virus infection.

Deaths due to chikungunya are rare.