

Health warning on mosquitoes and Ross River virus

Chief Health Officer advisory

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Issued by:	Professor Charles Guest, Chief Health Officer, Victoria
Issued to:	Health professionals including general practitioners and emergency departments

Key messages

- Residents and visitors to Victoria are being warned to protect themselves against mosquito-borne diseases such as Ross River virus, Barmah Forest virus and Murray Valley encephalitis.
- Ross River virus has been detected in mosquitoes in southern metropolitan Melbourne, in addition to regional Victoria, indicating that there is a risk of mosquito-borne infection across Victoria.
- West Nile / Kunjin virus has been detected in a sentinel chicken in Shepparton.
- Please advise patients that the best protection from mosquito-borne diseases is to avoid mosquito bites – use mosquito repellent containing picaridin or DEET, wear long and loose fitting clothing when outside, and ensure accommodation is mosquito proof.
- Direct patients to the Beat the Bite campaign page on the [Better Health Channel](#) for more information on all the ways you can protect yourself and your family against mosquito bites.
- Please consider the possibility of mosquito-borne disease in patients presenting with a compatible illness, especially after travel to regional Victoria. Notify Murray Valley encephalitis immediately on suspicion and Ross River and Barmah Forest virus after laboratory confirmation.

What is the issue?

Not all mosquitoes carry diseases – most are just a nuisance. Infected mosquitoes can carry a range of diseases including Ross River virus and Barmah Forest virus. These diseases can cause serious illness and occur regularly in regional Victoria. Murray Valley encephalitis is rare but in a small percentage of infected persons, can cause serious illness including meningitis or encephalitis.

A number of residents of outer metropolitan Melbourne have been notified to the Department with Ross River virus infection, and have not travelled to areas where mosquitoes that carry the virus are usually found. There have been recent findings of Ross River virus in mosquitoes trapped within the Frankston municipality, and a finding of Kunjin/West Nile virus in a sentinel chicken flock in Shepparton. These findings are a reminder of the importance of protecting against mosquito bites, and of the need to ask patients about exposures when presenting with a compatible illness.

Who is at risk?

Anyone is potentially at risk of being bitten by mosquitoes and while most bites will only cause minor swelling and irritation, an infected mosquito can transmit potentially serious diseases. All parts of Victoria where there are mosquitoes may carry a risk for Ross River virus infection, although the risk is greatest in regional Victoria. Infection appears to be rare in outer metropolitan areas.

Symptoms and transmission

Ross River virus and Barmah Forest virus disease cause a similar illness. Both can cause joint swelling and pain, fatigue and muscle aches which can persist for many months. A rash and fever may also develop. It takes three to nine days for symptoms of Ross River virus disease to occur after exposure, and occasionally up to 21 days. Barmah Forest virus disease symptoms occur between seven to ten days after a bite from an infected mosquito. Symptoms for both conditions usually resolve within 4-6 months. Affected individuals also develop immunity to subsequent infection.

Murray Valley encephalitis symptoms commence between seven to 28 days after exposure and include fever, headache, nausea and vomiting. This can lead to meningitis or encephalitis, which can lead to drowsiness, confusion, fitting, weariness or unsteadiness. In severe cases, delirium and coma can follow, resulting in brain damage or death. Kunjin/West Nile virus can cause symptoms similar to Ross River virus infection, and rarely leads to encephalitis. The incubation period is unknown, but is likely to be from 2-14 days.

Testing for these arboviral infections is encouraged where there is compatible illness, and should involve a blood test at first presentation and 14 days afterwards to look for seroconversion. Consideration should be given to testing of cerebrospinal fluid when there is clinical evidence of encephalitis.

Prevention/treatment

There are simple steps to protect against mosquito-borne diseases:

- Use effective mosquito repellents containing DEET or picaridin on all exposed skin.
- Wear long, loose fitting clothes if mosquitoes are around.
- Ensure your accommodation is mosquito proof through use of flywire screens on windows, or sleep under mosquito nets treated with insecticides if that is not achievable.
- Try to limit outdoor activity if lots of mosquitoes are about. Dusk and dawn is when most mosquitoes are more active.
- Use 'knockdown' sprays and plug-in vaporising devices indoors.
- Mosquito coils can be effective in small outdoor protected areas.

More information

Clinical / industry information

[Disease information and advice](https://www2.health.vic.gov.au/public-health/infectious-diseases/disease-information-advice) <<https://www2.health.vic.gov.au/public-health/infectious-diseases/disease-information-advice>>

Consumer information

[Beat the Bite - Better Health Channel](https://www.betterhealth.vic.gov.au/campaigns/beat-the-bite) <<https://www.betterhealth.vic.gov.au/campaigns/beat-the-bite>>

Contacts

Beat the Bite resources can be ordered at: <https://www2.health.vic.gov.au/public-health/infectious-diseases/infectious-diseases-order-resources> or email: infectious.diseases@dhhs.vic.gov.au



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