



Japanese encephalitis virus (JEV) health professionals kit

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How to use this kit

This kit includes information from the Department of Health and the Department of Agriculture, Water and the Environment for stakeholders about the current Japanese encephalitis virus (JEV) outbreak that you can disseminate through members, networks and channels.

Major announcements

- 1 March 2022 – [Japanese encephalitis detected in Eastern Australia](#)
- 4 March 2022 – [Japanese encephalitis virus situation declared a Communicable Disease Incident of National Significance](#)
- 5 March 2022 – [Japanese encephalitis detected in Australia](#)
- 11 March 2022 – [\\$69 million for Japanese encephalitis virus \(JEV\) response](#)

Key information

Overarching

- JEV has been detected in parts of southern and eastern Australia, in humans and in a number of piggeries

- JEV is a mosquito-borne flavivirus, and belongs to the same genus as dengue, yellow fever, Murray Valley encephalitis and West Nile viruses.
- Japanese encephalitis (JE) is a rare disease caused by the JEV; the first documented case was in 1871 in Japan.
- Before the current outbreak, JEV had only rarely been detected in humans in Australia. Of the 15 cases notified between 2012 and 2021, all but one acquired their infection overseas. The one locally acquired case was reported in the Tiwi Islands, Northern Territory in 2021.
- JE is a notifiable disease.
- JEV is spread through mosquito bites.
 - The virus does not spread between humans.
 - Animals such as pigs and horses cannot directly pass the virus to humans.
- Few species are thought to play a significant role in the natural transmission of JEV – most commonly waterbirds and pigs. The usual lifecycle of Japanese encephalitis is between waterbirds and mosquitoes. If the waterway is visited by feral pigs, or close enough to a piggery, infected mosquitoes can transmit the virus to pigs. Horses may also become infected, if near a source of JE-infected mosquitoes.
 - People and horses are considered 'dead end' hosts. Once infected, they do not play a role in transmitting the virus.
 - Pigs and some species of wild birds are 'amplifying' hosts and can produce sufficient levels of virus in their blood to infect mosquitoes.
- JEV is not a food safety concern. Commercially produced pork meat or pork products are safe to consume.
- The current status for human cases can be found on the Department of Health [website](#).
- The current status for animal cases can be found on the Department of Agriculture, Water and the Environment's [Outbreak website](#).
- The JEV outbreak has been declared a Communicable Disease Incident of National Significance.
- The Australian Government's health and agriculture departments are working closely with their state and territory government counterparts to ensure a coordinated response.
- A national working group of communicable disease, vaccine and arbovirus experts has been established to support the response.
- The response includes mosquito surveillance and control measures and identification of those at direct risk, and the rollout of vaccines.

Human health

Symptoms

- Most infections are asymptomatic – but on rare occasions infection can result in serious illness and even death.
- Some infected people experience fever and headache.
- Those with a severe illness may also experience neck stiffness, depressed level of consciousness, focal neurological signs, convulsions (especially in children) and paralysis.
- Symptoms (if they occur) usually develop 5 to 15 days after a person has been bitten by an infected mosquito.

Protection against disease

- JEV cannot be transmitted from human to human, nor by consuming meat from an infected animal.
- Ways to prevent JEV infection include:

- Vaccination against JEV.
 - Avoid being bitten by mosquitoes.
- Protection from mosquito bites is an important way to minimise potential exposure to JEV and other mosquito-borne diseases. This includes:
 - Using an mosquito repellent containing DEET, Picaridin, or Oil of Lemon Eucalyptus (PMD), that have been approved by the Australian Pesticides and Veterinary Medicines Authority (APVMA) on all exposed skin.
 - People should avoid the use of unregistered products or those sold from unknown, overseas suppliers as their effectiveness and safety may be unknown.
 - Wearing long, loose-fitting, light coloured clothing when outside.
 - Ensuring accommodation, including tents, is properly fitted with mosquito nettings or screens.
 - Using insecticide sprays, vapour dispensing units (indoors) and mosquito coils (outdoors) to clear rooms and repel mosquitoes from an area.
 - Covering all windows, doors, vents and other entrances with insect screens.
 - Removing any water-holding containers where mosquitoes may breed.

Vaccination

- Vaccines are being made available to those most at risk of infection as part of a priority outbreak vaccination program. The initial priority groups identified include:
 - people who work at, reside at, or have a planned non-deferable visit to a:
 - piggery, including but not limited to farm workers and their families (including children aged 2 months and older) living at the piggery, transport workers, veterinarians and others involved in the care of pigs
 - pork abattoir or pork rendering plant.
 - personnel who work directly with mosquitoes through their surveillance (field or laboratory based) or control and management, and indirectly through management of vertebrate mosquito-borne disease surveillance systems (e.g. sentinel animals) such as:
 - environmental health officers and workers (urban and remote)
 - entomologists
 - all diagnostic and research laboratory workers who may be exposed to the virus, such as persons working with JEV cultures or mosquitoes with the potential to transmit JEV; as per the Australian Immunisation Handbook.
- State and territory public health units are coordinating and implementing the priority vaccination program. People seeking information on whether they should have a JEV vaccination should be encouraged to [contact their local public health authority](#).
- The priority groups for vaccination are under ongoing review by the Communicable Diseases Network of Australia as more surveillance data becomes available about the areas where JEV may be present.
- In Australia, two JE vaccines are registered for use: Imojev (Sanofi Pasteur) is a single dose, live attenuated virus vaccine (which cannot be given to some people, such as pregnant women and those who are immunocompromised) and JEspect (Seqirus) is a two dose (inactivated) vaccine which requires a 28-day interval between doses.
- Further information is included in the [JE vaccine advice from the Australian Technical Advisory Group on Immunisation](#).
- For more information about priority vaccination visit the [Department of Health website](#).

Trusted sources of information

[Department of Health](#)
[The Australian Immunisation Handbook](#)
[Outbreak: National pest & disease outbreaks](#)
[ATAGI clinical guidance on JEV](#)

Website/newsletter article

Japanese Encephalitis Virus (JEV) has been detected in piggeries in New South Wales, South Australia, Queensland and Victoria.

On 4 March 2022, Australia's Acting Chief Medical Officer, Dr Sonya Bennett, declared the Japanese Encephalitis Virus (JEV) situation a Communicable Disease Incident of National Significance.

JEV is spread only through mosquito bites and is more common in areas of increased mosquito activity.

Most people will have no symptoms at all if infected and severe illness is rare. Symptomatic infection usually begins with sudden onset of fever, headache and vomiting.

A very small proportion of people infected, less than 1 per cent, may develop a serious illness such as encephalitis and experience symptoms including neck stiffness, severe headache and coma, and more rarely, permanent neurological complications or death.

Anyone experiencing these symptoms, where there has been high mosquito activity, should be tested after other common causes have been excluded.

JEV cannot be transmitted from human to human nor by consuming meat from an infected animal.



People should be encouraged to use mosquito repellent containing picaridin or DEET on all exposed skin and wear long, loose fitting clothing when outside. Mosquito nets or screens should be properly fitted to accommodation and tents.







A national working group of communicable disease, vaccine and arbovirus experts has been established to support the response to JEV. This includes mosquito surveillance and control measures.

Vaccines will be made available to those most at risk of infection, based on locality and profession, for more information about priority vaccination please visit the [Department of Health website](#).

For more information about the spread of JEV in people and human health information please visit the [Department of Health website](#).

Social media posts

Content	Image
<p>If you're planning a trip to a lake, river or creek, make sure you protect yourself from mosquito bites 🦟</p> <p>Mosquitoes love water and can carry potentially dangerous diseases, such as Japanese encephalitis virus (JEV).</p> <p>Protect yourself from all mosquito-borne diseases by taking some simple steps to avoid being bitten:</p> <ul style="list-style-type: none"> 👕 wear long, loose fitting, light coloured clothing when near water 🧴 apply and regularly reapply an effective insect repellent containing DEET, picaridin or Oil of Lemon Eucalyptus (PMD) on exposed skin 🏕️ limit outdoor activity if lots of mosquitoes are about, like at dawn or dusk 🏠 ensure accommodation is properly fitted with mosquito nettings or screens if you're sleeping on your boat or camping. <p>For information on JEV visit 🖨️ Japanese encephalitis Australian Government Department of Health</p>	 <p>The image shows a woman in a green shirt and dark pants hiking along a rocky riverbank. Above her is a dark blue banner with the text 'Protect yourself from mosquitoes' and a white illustration of a mosquito. Below the photo is a light blue banner with the text 'They might be carrying Japanese encephalitis virus'.</p>
Content	Image
<p>Do you have a camping trip with family or mates planned?</p> <p>Make sure you protect yourself from mosquito bites 🦟</p> <p>Mosquitoes can carry potentially dangerous diseases, including Japanese encephalitis virus (JEV).</p> <p>Don't let mosquitoes be unwanted visitors in your campsite 🏕️</p> <p>Take steps to protect yourself and your accommodation by:</p>	 <p>The image shows a group of people camping in a grassy area with trees. A woman is standing and talking to a group of people sitting around a picnic table. A tent is visible in the background. Above the photo is a dark blue banner with the text 'Going camping?' and a white illustration of a mosquito. Below the photo is a light blue banner with the text 'Protect yourself from mosquitoes. They might be carrying Japanese encephalitis virus.'</p>

Content	Image
<p> wearing long, loose fitting, light coloured clothing when outside</p> <p> applying and regularly reapplying an effective, insect repellent containing DEET, picaridin or Oil of Lemon Eucalyptus (PMD) on exposed skin</p> <p> using insecticide sprays and mosquito coils around your campsite</p> <p> limiting outdoor activity if lots of mosquitoes are about, like at dawn or dusk</p> <p> ensuring campervans, swags and tents are properly fitted with mosquito nettings or screens</p> <p> remove water-holding containers outside your campsite where mosquitoes can breed.</p> <p>For more information on JEV visit Japanese encephalitis Australian Government Department of Health</p>	

Attachment 1 – poster

