NSW Health

Japanese encephalitis virus and mosquito bite avoidance

Questions and answers



- Japanese encephalitis virus (JEV) has been detected in commercial piggeries in Southern, Western and New England areas of NSW, and in Victoria and Queensland.
- JEV can only be transmitted to humans by mosquitoes and is likely to be circulating in mosquito populations in NSW.
- Less than 1% of people infected with JEV experience symptoms, which typically include fever, joint pain, and rash. Occasionally JEV can cause severe neurological illness with headache, convulsions, reduced consciousness and death.
- The best way to avoid infection with JEV and other mosquito-borne viruses is by taking simple steps to avoid mosquito bites

How to avoid mosquito bites?

- Cover up as much as possible (light-coloured, loose-fitting clothing and covered footwear).
- Use mosquito repellents
- Use mosquito netting for children's cribs, prams and strollers
- Prevent mosquito breeding around the home

How to choose and use mosquito repellent?

Choosing a Repellent:

- Repellents containing DEET or Picaridin are most effective.
- Repellents containing oil of lemon eucalyptus (OLE) also provide adequate protection.
- Higher concentrations provide longer protection.
- Natural repellents such as citronella and eucalyptus provide very limited protection from mosquitoes.

Using a Repellent:

- Always follow the directions on the product label.
- Apply a thin layer evenly to the exposed skin.
- Duration of protection depends on concentration. Follow reapplication times suggested on the product label.
- Reapply repellent after intense exercise, hot weather and after swimming. Sunscreen should always be applied before repellents.
- Do not use repellent on infants aged 3 months or younger.
- Do not allow young children to apply their own repellent. Avoid application to hands, eyes and mouth

How to control mosquitoes around home?

- Prevent mosquito entry by using flyscreens on windows and doors. Screen chimneys, vents and other entrances.
- Consider using surface spray in cool shady areas in and around the home where mosquitoes rest during day.
- Clean up your backyard and remove all waterholding rubbish, including tires and containers where mosquitoes can breed.
- Keep lawns mowed.
- Keep gutters and drains clean so water runs freely.
- Store anything that can hold water undercover or in a dry place, and keep bins covered.
- Change pet drinking bowls, bird baths and vase waters at least once a week, and more regularly in very warm weather.
- Cover or securely screen the openings of septic tanks and rainwater tanks.
- Fill pot plant base with sand to avoid standing water.
- Keep swimming pools well maintained or empty or securely cover them if not in use.

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How to control mosquitoes inside the home?

- Maintain flyscreens on windows, doors, vents and chimneys.
- Consider use of over the counter insecticide sprays against visible mosquitoes in your home.
- Mosquito coils (used outdoors) and vapourising mats (used indoors) can help to repel mosquitoes from an area of interest.

How to avoid mosquitoes during travel or camping?

- Reside or sleep in screened or air-conditioned rooms.
- Use a bed net if you are sleeping outdoors or if the area is known for mosquitoes. Nets are most effective when they are treated with a pyrethroid insecticide, such as permethrin. Pre-treated bed nets can be purchased before travelling, or nets can be treated after purchase.
- Avoid known areas of high mosquito-borne disease transmission or outbreaks.

