## \* GENERAL REPELLENT GUIDELINES \*

Insect repellents containing DEET, picaridin or Oil of Lemon Eucalyptus (OLE), also known as PMD are the most effective. As a general rule, the greater the percentage of DEET, picaridin or OLE, the longer the product will remain effective.

- ★ Always follow instructions on the label.
- ★ Choose a repellent with an appropriate concentration of DEET, picaridin or OLE to match the length of time you are outdoors.
- ★ Apply directly to skin (except face) and spread evenly with hands.
- ★ For face application, apply first to hands and then spread evenly on face, avoiding mouth and eyes.
- ★ Repellents will not be as effective if applied sparingly to the skin.
- ★ Reapply repellent according to the label.

# \* PROTECT YOUR BABY OR TODDLER \*

Where possible, avoid exposing your baby or child to mosquitoes. Consider staying indoors, using pram netting or dressing them in loose, long-sleeved clothing, socks and shoes.

#### Mosquito repellents for children

- ★ Under 12 months repellents containing DEET, picaridin or OLE are not recommended.
- ★ From 12 months repellents containing up to 10% DEET, picaridin or OLE can be used.

#### Application guidelines for children

- ★ Do not allow children to apply repellent.
- ★ Apply repellent firstly to the hands of the carer and then spread evenly to exposed skin of child.
- ★ Avoid applying repellents to hands, near the eyes or mouth.
- ★ Do not apply repellent under clothing.

#### MOSQUITOES ARE MORE THAN ★ JUST A NUISANCE ★

Whilst there is a vaccine for Japanese encephalitis, there is no vaccine or cure for any other mosquito-borne disease acquired in Australia. The most effective way to prevent infection is to avoid being bitten.

# 🗰 COVER UP. REPEL. CLEAN UP. 🛪

Many mosquitoes are at their biting best around dusk and dawn, but some will bite day and night.



# **Cover up**

Wear long, loose-fitting, light coloured clothing to cover exposed skin.

# Repel

DEET, picaridin or Oil of Lemon Eucalyptus (OLE), also known as PMD, evenly to all areas of exposed skin.

# **Clean up**

Stop mosquitoes breeding around your home by removing, emptying or covering water holding containers.

#### For more information

Contact the Department of Health or visit healthywa.wa.gov.au/FighttheBite

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Government of Western Australia Department of Health

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\*FIGHT the BITE\*







#### MOSQUITO-BORNE DISEASES \* IN WESTERN AUSTRALIA \*

In Western Australia, mosquitoes can transmit Ross River virus, Barmah Forest virus, Kunjin virus, the potentially fatal Murray Valley encephalitis and Japanese encephalitis viruses.

The only way to confirm if you have a mosquito-borne disease is to visit your doctor for a specific blood test. Whilst there is a vaccine for Japanese encephalitis, there is no vaccine or cure for any of the other diseases. The most effective way to prevent infection is to avoid being bitten.

#### Common mosquito-borne diseases in WA

Ross River and Barmah Forest viruses occur throughout WA. Common symptoms include:

- ★ skin rashes
- ★ painful or swollen joints
- ★ sore muscles
- ★ flu-like symptoms (fever, chills, headache)
- ★ tiredness or weakness.

Symptoms can last for several weeks to months, and in some cases, years.

#### More serious mosquito-borne diseases in WA

Murray Valley encephalitis and Japanese encephalitis are rare but potentially fatal diseases that may occur in northern WA. Symptoms include fever, drowsiness, headache, stiff neck, nausea and dizziness. In severe cases seizure, coma, brain damage or death may result. People experiencing these symptoms should seek medical advice quickly.

Kunjin virus disease is a rare disease also occurring in northern WA. Generally, the symptoms are milder than Murray Valley and Japanese encephalitis.



# Cover up

Wear long, loose-fitting, light coloured clothing, covering as much of the body as you can. Mosquitoes can bite through tight clothing like jeans. Make sure children are also appropriately covered up.



When outdoors and mosquitoes are present, apply insect repellent containing picaridin, DEET (diethyltoluamide), or Oil of Lemon Eucalyptus (OLE), also known as PMD, evenly to exposed skin. If you spend long periods of time outdoors, you may need to reapply your repellent.

### **Clean up**



Simple changes around your home can reduce mosquito breeding. Remove, empty or cover water-holding containers.

#### STOP MOSQUITOES BREEDING \* AROUND YOUR HOME \*

Mosquitoes can breed around your home. They will lay eggs in fresh or salty water, and often in containers that hold water. Common breeding sites include pot plant drip trays, ponds, pet bowls, old tyres and rubbish that may collect water.

Stop mosquitoes breeding around your home by following these simple steps:

- ★ Empty out or discard containers and rubbish that may hold water.
- ★ Clean out roof gutters to prevent water from pooling.
- ★ Empty, clean and refill bird baths, stock troughs and pet water bowls at least once a week.
- ★ Keep swimming pools properly maintained and free of debris.
- ★ Empty wading pools at the end of each day.
- ★ Stock garden ponds with fish to eat mosquito larvae.
- ★ Cover rainwater and septic tank openings, wells or other large water containers with mosquitoproof mesh.
- ★ Keep edges of dams and ponds clear of vegetation.
- ★ Cut grass and keep it short to prevent mosquitoes seeking shelter around your home and backyard.

If mosquitoes continue to be a problem around your home, contact your Local Government Environmental Health Officer or the Department of Health for further advice.