



How can I avoid being bitten?

Cover up and use repellents

- Avoid mosquitoes when they are most active, particularly around dawn and dusk. Some mosquitoes will also bite during the day.
- Cover up with long, loose-fitting and preferably light-coloured clothing. Mosquitoes can bite through fitted clothing, even denim jeans.
- Application of mosquito repellents is important for avoiding exposure to diseases transmitted by mosquitoes. When outdoors, carry an effective mosquito repellent for use if mosquitoes are active.
- The most effective repellents contain either diethyl toluamide (DEET) or picaridin.
- Lotion or gel repellents are the most effective. Always read the label. Apply and re-apply repellents in accordance with the manufacturer's instructions.
- Natural or organic repellents are generally not as effective as DEET or picaridin and may need to be applied more frequently.
- The best protection for babies and young children is protective clothing, bed nets and other forms of insect screening. Only infant-strength repellents should be used on young children.

Houses

- Insect-proof houses by screening all doors and windows.
- Doors should be self-closing and open outwards.
- In high-risk areas build a fully screened outdoor area to protect yourself when outside.

Travelling and camping

- If you are travelling, discuss with your GP how to protect yourself against diseases transmitted by mosquitoes.

- Screen caravans, tents, swags and other sleeping equipment or use a mosquito net.
- Recognise and avoid areas of mosquito activity such as swamps, salt marshes, billabongs and river floodplains.

What broader mosquito control measures are in place?

With assistance from the Department of Health, many local governments conduct mosquito control programs in some of the worst mosquito breeding areas. However, it is simply not possible to eliminate all mosquitoes in the natural environment. Therefore, it is important to take personal measures to reduce the risk of catching a mosquito-borne disease.

For further information contact:

- Your local government Environmental Health Officer
- Environmental Health Directorate
Department of Health
Telephone: (08) 9388 4999
Email: ehinfo@health.wa.gov.au
www.public.health.wa.gov.au

This document can be made available in alternative formats on request for a person with a disability.

Prevent mosquitoes around your home



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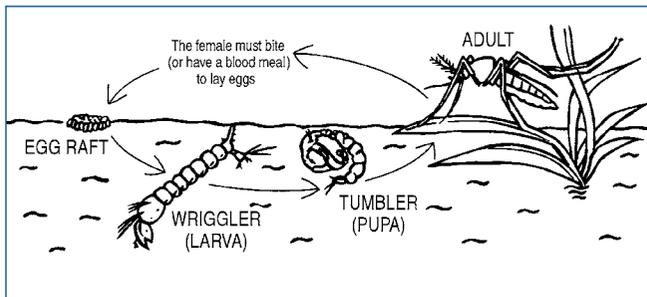
There are almost 100 types (species) of mosquitoes in Western Australia and many of them can be serious pests. Mosquito bites can cause discomfort and pain, particularly to babies and others with sensitive skin. Infected mosquitoes can also pass on disease-causing viruses and parasites when they bite.

Did you know?

Only female mosquitoes bite. They need the protein from blood to develop their eggs.

Mosquito lifecycle

Mosquitoes go through four development stages – egg, wriggler (larva), tumbler (pupa) and finally adult. This whole cycle from hatching egg to flying adult can take as little as 5-7 days in summer. During colder months the life cycle may take several weeks.



Where do mosquitoes breed?

Mosquitoes can breed in any type of standing water, from natural and man-made water bodies to water-holding containers. Backyards are a common mosquito breeding environment, with old car tyres, pot plant drip trays, septic tanks, rain-water tanks, blocked roof gutters, domestic ponds, paddling pools and disused containers like jars and buckets all being ideal breeding sites.

While mosquitoes do not breed in long grass and vegetation, these environments offer adult mosquitoes protection on hot summer days.

How can I eliminate mosquito breeding sites in my backyard?

	<ul style="list-style-type: none"> Dispose of all containers which hold water.
	<ul style="list-style-type: none"> Stock ornamental ponds with mosquito-eating fish such as goldfish. Keep vegetation away from the water's edge.
	<ul style="list-style-type: none"> Keep swimming pools well chlorinated, filtered and free of dead leaves.
	<ul style="list-style-type: none"> Level or drain depressions in the ground that hold water.
	<ul style="list-style-type: none"> Fit mosquito-proof covers to vent pipes on septic tank systems. Seal all gaps around the lid and ensure leach drains are completely covered.
	<ul style="list-style-type: none"> Screen rainwater tanks with insect-proof mesh, including inlet, overflow and inspection ports. Ensure guttering is not blocked and does not hold water.
	<ul style="list-style-type: none"> Empty pot plant drip trays once a week or fill with sand. Empty and clean animal and pet drinking water bowls once a week.
	<ul style="list-style-type: none"> Some plants (especially bromeliads) hold water in their leaf axils. These should also be emptied weekly.

Residual chemical sprays can be used to further reduce mosquitoes. This should not, however, replace the removal and prevention of backyard breeding sites which is a more effective control method.

Always read the label and apply residual sprays in accordance with the manufacturer's instructions.

Why do we need to stop mosquitoes breeding – what are the health risks?

Mosquitoes can pass on viruses when they bite. The main viruses transmitted by mosquitoes in WA are:

- Ross River virus (RRV)** – this is the most common virus transmitted by mosquitoes in WA. Symptoms of RRV disease include joint pain and swelling, sore muscles, rash, fever and fatigue. Symptoms may persist for several weeks to months.
- Barmah Forest virus (BFV)** – BFV disease has similar symptoms to RRV disease but is not as common.
- Murray Valley encephalitis (MVE) virus** – MVE is a rare but potentially fatal disease that occurs mainly in the northern half of WA. Symptoms include fever, drowsiness, confusion, headaches and stiff neck, nausea and vomiting, muscle tremors and dizziness. In severe cases brain damage, paralysis or death may result.
- Kunjin virus** – while the symptoms of this rare but serious disease can be similar to MVE, generally symptoms tend to be milder and not life-threatening.

There are no specific cures or registered vaccines for any of these diseases. Avoiding mosquito bites is the only way to protect yourself against them.

Two other mosquito-borne diseases, malaria and dengue, can not be transmitted in WA.

Viruses and parasites transmitted by mosquitoes can also cause illness and death in animals. Dog heartworm is caused by a parasitic worm passed on by mosquitoes which, in large numbers, can clog the dog's heart and seriously affect blood flow.