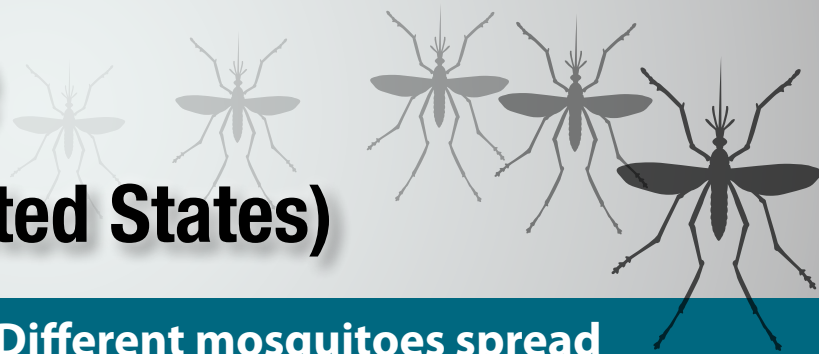




Mosquito Bite Prevention (United States)



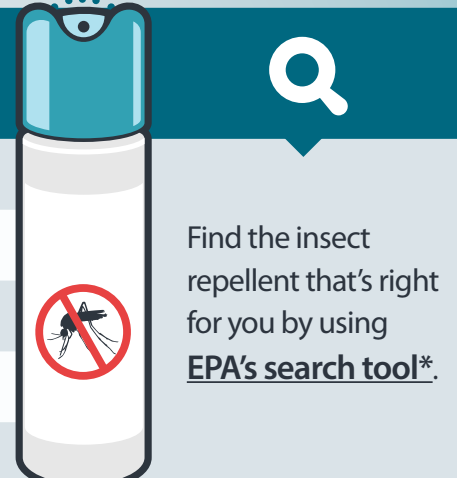
Not all mosquitoes are the same. Different mosquitoes spread different viruses and bite at different times of the day.

| Type of Mosquito | Viruses spread | Biting habits |
|--|--------------------------------------|--|
|  <p><i>Aedes aegypti</i>, <i>Aedes albopictus</i></p> | <p>Chikungunya, Dengue, Zika</p> | <p>Primarily daytime, but can also bite at night</p> |
|  <p><i>Culex</i> species</p> | <p>West Nile</p> | <p>Evening to morning</p> |

Protect yourself and your family from mosquito bites

Use insect repellent

Use an Environmental Protection Agency (EPA)-registered insect repellent with one of the following active ingredients. When used as directed, EPA-registered insect repellents are proven safe and effective, even for pregnant and breastfeeding women.

| Active ingredient |  <p>Find the insect repellent that's right for you by using EPA's search tool*.</p> |
|---|--|
| DEET | |
| Picaridin (known as KBR 3023 and icaridin outside the US) | |
| IR3535 | |
| Oil of lemon eucalyptus (OLE) or para-menthane-diol (PMD) | |
| 2-undecanone | |

* The EPA's search tool is available at: www.epa.gov/insect-repellents/find-insect-repellent-right-you



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Protect yourself and your family from mosquito bites *(continued)*



- ◆ Always follow the product label instructions.
- ◆ Reapply insect repellent every few hours, depending on which product and strength you choose.
 - » Do not spray repellent on the skin under clothing.
 - » If you are also using sunscreen, apply sunscreen first and insect repellent second.

Natural insect repellents (repellents not registered with EPA)

- ◆ The effectiveness of non-EPA registered insect repellents, including some natural repellents, is not known.
- ◆ To protect yourself against diseases like chikungunya, dengue, and Zika, CDC and EPA recommend using an EPA-registered insect repellent.
- ◆ When used as directed, EPA-registered insect repellents are proven safe and effective. For more information: www2.epa.gov/insect-repellents

If you have a baby or child



- ◆ Always follow instructions when applying insect repellent to children.
- ◆ Do not use insect repellent on babies younger than 2 months of age.
- ◆ Dress your child in clothing that covers arms and legs, or
 - ◆ Cover crib, stroller, and baby carrier with mosquito netting.
 - ◆ Do not apply insect repellent onto a child's hands, eyes, mouth, and cut or irritated skin.
 - » Adults: Spray insect repellent onto your hands and then apply to a child's face.
 - ◆ Do not use products containing oil of lemon eucalyptus (OLE) or para-menthane-diol (PMD) on children under 3 years of age.

Treat clothing and gear



- ◆ Treat items such as boots, pants, socks, and tents with permethrin or purchase permethrin-treated clothing and gear.
 - » Permethrin-treated clothing will protect you after multiple washings. See product information to find out how long the protection will last.
 - » If treating items yourself, follow the product instructions.
 - » Do not use permethrin products directly on skin.

Mosquito-proof your home



- ◆ Use screens on windows and doors. Repair holes in screens to keep mosquitoes outside.
- ◆ Use air conditioning when available.
- ◆ Keep mosquitoes from laying eggs in and near standing water.
 - » Once a week, empty and scrub, turn over, cover, or throw out items that hold water, such as tires, buckets, planters, toys, pools, birdbaths, flowerpots, or trash containers. Check inside and outside your home.

What You Need to Know About Truck Spraying



Mosquito control districts or local government departments track mosquito populations to learn where viruses, like Zika or West Nile, are spreading in a community. Spraying insecticides from a truck is one way to safely kill mosquitoes in an area, especially when people in the community are getting sick from mosquito bites. There are different types of sprayers that can be put on a truck.

Truck spraying is used to:

- ◆ Control and reduce the number of mosquitoes that can spread viruses.
- ◆ Reduce your chances of getting infected with viruses.

What are mosquito control trucks spraying?

Mosquito control trucks spray very small amounts of insecticide into the air to kill mosquitoes. This spray is a fine mist that acts as a fogger in the area. Mosquito control districts or local government departments will choose what type of insecticide to use in an area.

What does the insecticide spray do?

Adulticide sprays immediately kill flying mosquitoes. Larvicide sprays kill mosquito larvae that hatch from eggs and lasts longer than adulticide sprays. Both products will temporarily reduce mosquito populations in an area, but will not permanently get rid of them.

When does spraying occur?

Spraying takes place in the early evening when mosquitoes are more active. Often, local government agencies or mosquito control districts announce the dates and times of spraying in the local newspaper, on district websites, through public service announcements, by telephone, or through door-to-door notices.

How often do communities spray?

After spraying, mosquito control districts or local government departments will track mosquito populations and treat an area again as necessary to reduce the chances of people getting bitten by mosquitoes that can spread viruses.

Is the spray harmful to people, pets, animals, or the environment?

No, when done correctly, truck spraying will not harm people, pets, animals, or the environment.

What should I do during or after spraying?

Spraying is safe. You do not need to leave an area when truck spraying for mosquito control takes place. If you prefer to stay inside and close windows and doors when spraying takes place you can, but it is not necessary. If you are having any type of health problems after spraying, contact your doctor or healthcare provider. The spray does not harm pets, but you may choose to bring them inside when spraying occurs.



Mosquito control truck spraying insecticide into the air
Photo courtesy of Ed Freytag, City of New Orleans Mosquito & Termite Control Board



A truck with a different type of sprayer on the back.

Information on Insecticides and Health:

- ◆ The [US Environmental Protection Agency](#) oversees the registration of these chemicals.
- ◆ The [National Pesticide Information Center \(NPIC\)](#) provides information online or through a toll-free number, 1-800-858-7378.

If you are experiencing health problems for any reason, see your doctor or healthcare provider.

Mosquito Control: You Have Options.

Learn more: <http://www.cdc.gov/zika/prevention/controlling-mosquitoes-at-home.html>



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Mosquito Control:

What state and local mosquito control programs do



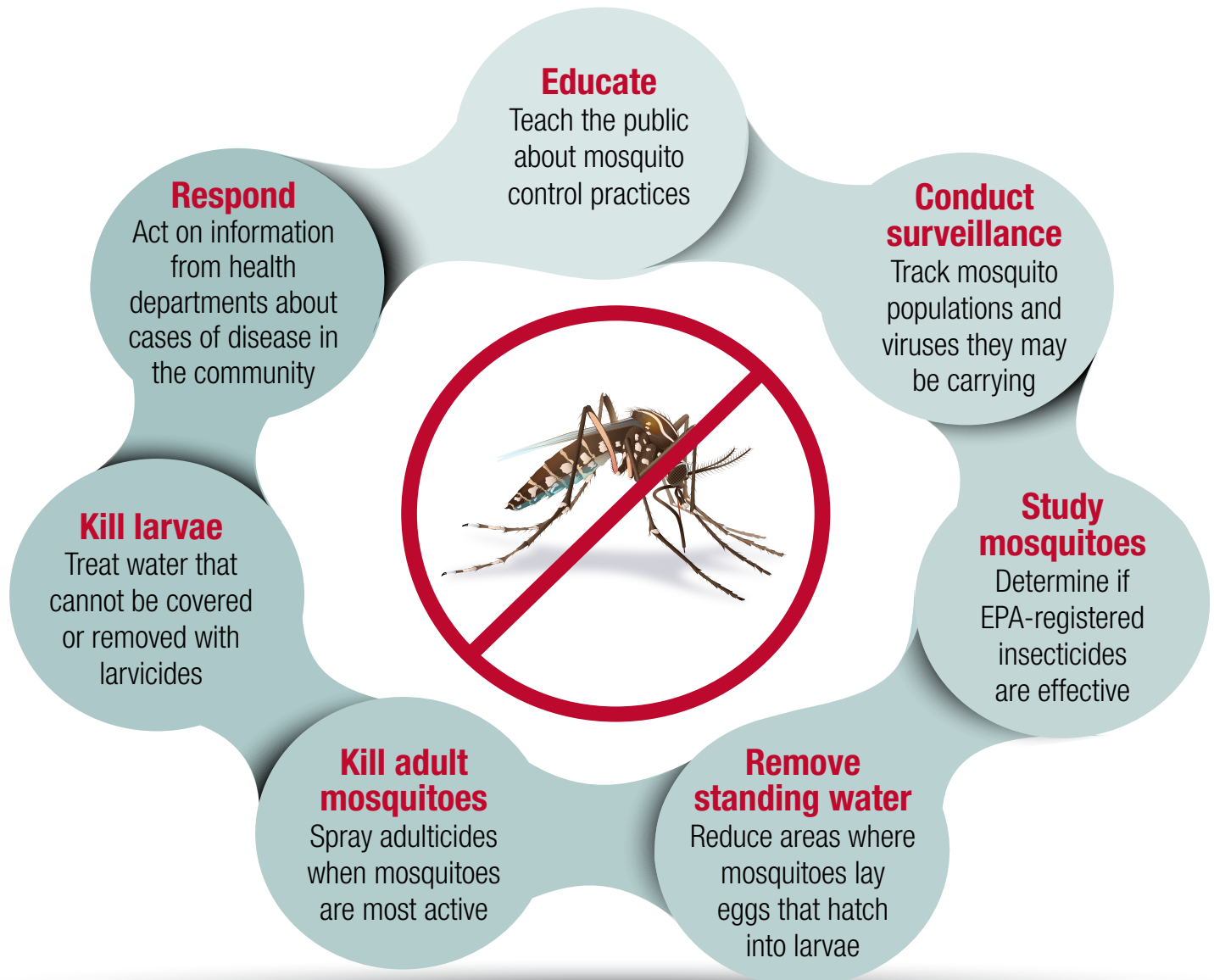
Why is local mosquito control important?

Some mosquitoes can spread viruses like Zika, West Nile, and dengue. Other mosquitoes bother people, but don't spread viruses. Mosquito control activities reduce all types of mosquitoes.

Who conducts mosquito control?

Mosquito control districts or state and local government departments work to control mosquitoes.

What do local mosquito control programs do?



Mosquito Control: You Have Options.

Learn more: <http://www.cdc.gov/zika/prevention/controlling-mosquitoes-at-home.html>



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What you need to know about using larvicides



Larvicides are products to help control mosquitoes outside your home. They work by killing mosquito larvae and pupae before they can grow into biting adults. When used according to product label instructions, larvicides do not harm people, pets, or the environment.

Selecting a larvicide

Larvicides come in many forms:

- ◆ Liquids
- ◆ Granules
- ◆ Tablets
- ◆ Briquettes
- ◆ Pellets

Apply larvicides where mosquitoes lay eggs

Use larvicides where mosquitoes lay eggs to help reduce the number of mosquitoes in an area. Mosquitoes lay eggs in items that hold water:

- ◆ Buckets and rain barrels
- ◆ Fountains
- ◆ Gutters or downspouts
- ◆ Non-chlorinated swimming pool
- ◆ Pool covers that collect water
- ◆ Septic tanks
- ◆ Tires
- ◆ Tree holes

Treat standing water

Use larvicides to treat standing water that:

- ◆ Will not be used for drinking
- ◆ Cannot be covered, dumped or removed

When using larvicides

Follow the instructions on the label. Do not apply more than directed or reapply more often than instructed.

Prefer to hire a pest control professional?

Hire a pest control expert to treat your yard and outdoor areas. The National Pest Management Association offers tips on finding a pest management professional at <http://www.npmapestworld.org/>.



A dunk is placed in a fountain to kill young mosquitoes.

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