



STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH SERVICES



Mosquito Repellents

Why should I use a mosquito repellent?

Mosquitoes can spread diseases that cause serious illness. In New Hampshire, the diseases spread by mosquitoes are eastern equine encephalitis (EEE) and West Nile virus (WNV). Mosquito repellents can reduce your chances of being bitten by a mosquito and can reduce the risk that you will get one of these diseases.

When should I use a mosquito repellent?

Use a mosquito repellent when you are outside and exposed to mosquitoes, especially around dawn and dusk when mosquitoes are most active. The safest decision is to use repellent whenever you are outdoors, even if it is only for a few minutes. In northern states such as New Hampshire, mosquitoes usually start to become active during early or mid-spring and remain active until the first hard frost (when the ground freezes).



Did you know?

A mosquito can smell the carbon dioxide you exhale from about 60 to 75 feet away. Mosquitoes can fly about 1 to 1.5 miles per hour. A mosquito wing beats 300-600 times per second.

Which repellents work best?

A wide variety of insect repellents are available. It is important to look at the active ingredient on the product label. Repellents that contain **DEET** (N, N-diethyl-m-toluamide), **permethrin**, or **picaridin** (KBR 3023) provide protection against mosquitoes. In addition, **oil of lemon eucalyptus** (p-methane 3, 8-diol [PMD]) and **IR3535** (3-[N-Butyl-N-acetyl]-aminopropionic acid, ethyl ester) have been found to provide as much protection as low concentrations of DEET. The U.S. Centers for Disease Control and Prevention (CDC) recommends using only products containing active ingredients that are registered with the U.S. Environmental Protection Agency (EPA) for use as repellents. (<http://www.cdc.gov/ncidod/dvbid/westnile/RepellentUpdates.htm>)

DEET products with a concentration of 30% or less are recommended for adults and children over 2 months of age. The higher the DEET concentration, the longer the repellent will last. However, the length of protection time will vary widely depending on temperature, perspiration, and water exposure. Choose a repellent that will provide protection for the amount of time you will be outdoors.

Permethrin products are intended for use on items such as clothing, shoes, bed nets and camping gear and should not be applied to skin. Follow the product's instructions and apply permethrin to your clothes before you put them on.

Oil of lemon eucalyptus products should not be used on children under the age of three years.

Always Use Repellents Safely

- ❖ Follow the instructions given on the product label.
- ❖ Don't use repellents under clothing.
- ❖ Don't use repellents on cuts or irritated skin.
- ❖ Don't use repellents near the mouth or eyes and use them sparingly around the ears.
- ❖ When using spray products, spray the product onto your hands first, and then apply it to your face.
- ❖ Use just enough product to lightly cover exposed skin and/or clothing.
- ❖ When using repellents on children, put some on your hands first, and then apply it to the child.
- ❖ When you come inside, wash your skin and the clothes that had repellent on them.
- ❖ If you develop a rash or other symptoms you think were caused by using a repellent, stop using the product, wash the affected area with soap and water, and contact your doctor or local poison control center. If you go to the doctor, bring the product with you to show him or her.

I'm concerned about using repellents on my infant. What else can I do to protect my infant from mosquitoes?

Mosquitoes are most active between dusk and dawn, so try to avoid outdoor activities with your infant during these times. When your infant is outside, use mosquito netting on baby carriages or playpens and consider going indoors if you notice a lot of mosquito activity.

Where can I get more information?

For more information on repellents such as choosing the right repellent, using repellents on children or pregnant women, or detailed toxicology information, contact the National Pesticide Information Center (NPIC) toll free at 1-800-858-7378 or online at

<http://npic.orst.edu/wnv/pesticideinfo.htm#repellents> or consult the EPA web site http://www.epa.gov/pesticides/factsheets/alpha_fs.htm .

For questions on diseases spread by mosquitoes, visit www.dhhs.nh.gov or call the New Hampshire Department of Health and Human Services at 603-271-4496 or the EEE/WNV Information Line at 1-866-NILE (6453).