



Pesticides: Topical & Chemical Fact Sheets

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How to Use Insect Repellents Safely

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Key Points to Remember

- Follow the label directions. Always use the product safely.
- Products registered by EPA and used according to the label directions are safe for children and others.
- Do not use any product on pets or other animals unless the label clearly states it is for animals. Most insect repellents do not work on lice or fleas.
- Use various other ways to deter biting insects. Be sure window screens are repaired. Wear long-sleeve clothing.
- Store insect repellents safely out of the reach of children.
- Read more about active ingredients.

Quick Resources

Questions about pesticides?

- Contact: National Pesticide Information Center
1-800-858-7378
[EXIT Disclaimer](#)
- EPA fact sheet: Active Ingredients in Insect Repellents

Mosquitoes, biting flies, and ticks can be annoying and sometimes pose a serious risk to public health. In the United States, mosquitoes can transmit diseases like St. Louis encephalitis and West Nile virus. Biting flies can inflict a painful bite that can persist for days, swell, and become infected. Ticks can transmit serious diseases like Lyme disease, Rocky Mountain spotted fever, and Ehrlichiosis. When properly used, **insect repellents** can discourage biting insects from landing on treated skin or clothing.

*Note: EPA registered insect repellents are not recommended to repel lice. Also, human insect repellent products should not be used on your pets. Only use products labeled for pet use on your dog, cat, or other domestic pet. [Read the label first: Protect your pets.](#)

Choosing Insect Repellents

Consider non-chemical ways to deter biting insects. Use structural barriers such as window screens or netting, or wear long-sleeve shirts, long pants, and socks. If non-chemical methods prove to be ineffective, an insect repellent may be necessary. Repellents are available in various forms and concentrations: they can be applied directly to the skin, to clothing, or found in pre-treated clothing.

Some provide protection time information on the product label. The label on the repellent product is your guide to using these products safely and effectively. It contains information that you should read and understand before you use a repellent product. Also, repellents that do not bear an EPA registration number have not been evaluated by EPA, and the Agency cannot advise consumers about the effectiveness of these products.

Using Insect Repellents Safely

EPA requires labels to list certain important precautions in order to use pesticides safely and effectively, and to prevent harmful exposure. You should read and understand this information before you use a pesticide product! Remember:

The Label Is The Law

- Pesticide labels provide instructions about proper handling, use, and application rates of the product, and precautions to protect people and the environment.
- Label directions are derived from scientific testing by manufacturers and evaluation by EPA scientists to ensure that products can be used with minimal risk to people and the environment.
- **READ THE LABEL FIRST!**
- Learn more about what's on a product label.



Other than the precautions listed on the product label, EPA does not recommend any additional precautions for using registered repellents on pregnant or lactating women, or on children.

The Agency also recommends you store pesticides away from children's reach, in a locked utility cabinet or garden shed.

More Information about Pesticides, Repellents, and Insect-borne Diseases

The substances in insect repellents that actually repel the insects are the active ingredients, and are registered with EPA. Active ingredients typically either kill, repel, attract, reduce, or control a pest. As long you follow label directions and take proper precautions, EPA-registered insect repellents are safe to use and do not present a health concern. Read more information from the EPA fact sheet: [Active Ingredients in Insect Repellents](#).

For more information about public health insect control in your area, contact your [state or local health department](#) or [cooperative extension service](#). Other resources for information on public health, disease control, and mosquito control include the following:

- Infectious diseases carried by insects:
 - [Lyme disease](#) - EPA information
 - [Lyme disease](#) - Centers for Disease Control and Prevention (CDC)
 - [Lyme Disease Association \(LDA\)](#) - Offers information about this non-profit corporation whose goals are education, prevention, and research funding. Includes articles on ticks, vaccines and other useful information. [EXIT Disclaimer](#)
 - [West Nile Virus disease](#) - CDC
- [Insect Repellent Use and Safety in Children](#) - U.S. Food and Drug Administration (FDA)
- [West Nile Virus Resource Guide](#) [EXIT Disclaimer](#)