



IT'S YOUR HEALTH



Insect Repellents

The Issue

Insect repellents can be an effective aid in reducing bites from mosquitos and ticks, which can cause a range of health problems, from itchiness and irritation to potentially serious diseases.

Background

Mosquitos can bite at any time during the day, but most species tend to be more active at dawn and dusk. Ticks are often encountered along trail edges, particularly in wooded areas or tall grass.

Health Risks of Mosquito and Tick Bites

Around the globe, mosquito and tick bites can lead to a range of diseases, including malaria. Here in Canada, West Nile virus and Lyme disease are the only significant health concerns. For most Canadians, the risk of contracting these illnesses is very low, and the risk of serious health effects is also low. Your best protection from illness is to take preventative measures, including the use of insect repellents that have been approved by Health Canada, or to cover exposed skin with clothing as much as possible. Approved Health Canada products have a Pest Control Product (PCP) registration number on the product label.

Choosing A Personal Insect Repellent

Choose a product that meets your needs. For example, if you plan to be outdoors for a short period of time, choose a product with a lower concentration of repellent, and repeat application only if you need a longer protection time.

Use only personal insect repellents that have a Pest Control Product registration number and are labelled as insect repellents for use on humans. Never use a product labelled as an insecticide on your body.

DEET

Registered products containing DEET, when used as directed, are acceptable for use. Health Canada completed the latest review in 2001, which was also supported by the Canadian Paediatric Society.

The higher the DEET concentration in the repellent formula, the longer it provides protection. While this is true for protection against both mosquitos and ticks, DEET repels mosquitos for a longer duration than for ticks. When seeking protection against ticks, look for a product that specifies use for ticks. Health Canada has approved the following concentrations for different age groups. Prolonged use should be avoided in children under the age of 12.

- Up to 30% concentration of DEET for adults and children over 12 years of age. One application of 30% DEET should be effective for six hours against mosquitos.
- Up to 10% concentration for children aged two to 12, applied up to three times daily. One application of 10% DEET should be effective for three hours against mosquitos.
- Up to 10% concentration for children aged six months to two years, applied no more than once daily. One application of 10% DEET offers three hours of protection against mosquitos.

Do not use personal insect repellents containing DEET on infants under six months of age. Use a mosquito net when the child is outdoors in a crib, playpen or stroller.

Sunscreen and Personal Insect Repellents

Sunscreen and personal insect repellents can be used safely at the same time. Follow the instructions on the package for proper application of each product. Apply the sunscreen first, and follow with the insect repellent.

P-menthane 3.8-diol

Products containing this active ingredient are registered in Canada. They provide up to 2 hours of protection against mosquitos and up to 5 hours of protection against blackflies, but should not be used on children under three years of age. These products can be applied up to two times per day.

Soybean Oil

Soybean oil, 2 % blocker repellent is another personal insect repellent that provides protection for 3.5 hours against mosquitos and for up to 8 hours for blackflies. There are no age restrictions or limitations on frequency of use with these products.

Citronella

In 2004, Health Canada completed a review of the available information on citronella-based personal insect repellents that are applied directly to the skin. There was a lack of safety data to support continued registration. However, since Health Canada did not identify any imminent health risks, citronella-based personal insect repellents will remain on the market until a final decision is made.

Registered products containing citronella protect people against mosquito bites from 30 minutes to two hours. These products should not be used on infants and toddlers.

Certain products containing citronella have a limit on the number of applications allowed per day. Read the product label before using.

Not Recommended for Personal Protection

The following products are not recommended for a variety of reasons. They may not be very effective or long-lasting, and may have the potential to be harmful to human health.

- Electronic or ultrasonic devices
- Electrocuting devices, such as bug zappers
- Wristbands, neckbands and ankle bands impregnated with repellents
- Odour-baited mosquito traps
- Citrosa houseplants
- Vitamin B1 taken orally
- Skin moisturizers and insect repellent-combination products are not approved for use by Health Canada. Use separate products simultaneously when required.

Minimizing Your Risk

Besides using an insect repellent, you can reduce your risk by taking the following steps.

- Whenever possible, avoid being outdoors at dawn or dusk when mosquitos are most active.
- Mosquitos develop in standing pools of water, so remove standing water from items such as pool covers, saucers under flower pots, pet bowls and wading pools on your property. Empty and clean bird baths twice a week, and regularly clean eavestroughs to prevent clogs that can trap water.
- Wear long-sleeved shirts, full length pants and closed shoes if you are outdoors when mosquitos are active or where ticks might be found.
- If you are in an area where ticks might be found, you should also tuck your shirt into your pants and pull socks up over your pant legs. This will help keep ticks away from your bare skin.
- Wear light-colored clothing, which will help reduce your overall attractiveness to mosquitos and allow you to see ticks more easily.
- Make sure you have screens on your windows that do not have any tears or gaps. Make sure doors are tight fitting.
- When returning from areas where ticks may be found, check your clothes and your entire body for ticks. It is important to check pets regularly, as well.
- If you plan to travel to tropical areas where serious mosquito-borne diseases such as malaria are common, see your doctor or visit a travel clinic several weeks before you go.



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General Use Information for all Personal Insect Repellents

- Always read the entire label carefully before using. Follow all of the label directions, including restrictions for use on children and the maximum number of applications allowed per day.
- Apply the repellent sparingly, and only on exposed skin surfaces or on top of clothing. Do not use under clothing. Heavy application and saturation are unnecessary for effectiveness. Repeat applications only as necessary and directed on the product label.
- Try not to get repellent in your eyes. If you do, rinse them immediately with water.
- Do not use the repellent on open wounds, or if your skin is irritated or sunburned.
- Avoid breathing spray mists and never apply sprays inside a tent. Use only in well-ventilated areas. Do not use near food.
- When using sprays, do not spray directly onto face; spray on hands first and then apply to face.
- Wash treated skin with soap and water when you return indoors or when protection is no longer needed.
- Keep all insect repellent containers out of reach of children and pets.
- Always supervise the application of insect repellents on children.

- Avoid applying repellent to children's hands to reduce the chance of getting the repellent in their eyes and mouths.
- If you suspect that you are, or that your child is reacting to an insect repellent, stop using the product immediately, wash treated skin, and seek medical attention. When you go to the doctor, take the product container with you.
- If you are concerned that you might be sensitive to a product, apply the product to a small area of skin on your arm and wait 24 hours to see if a reaction occurs.

Government of Canada's Role

Health Canada's Pest Management Regulatory Agency (PMRA) is the federal agency responsible for the regulation of pesticides in Canada. The Agency's primary objective is to prevent unacceptable risk to human health and the environment from the use of approved pesticides.

The Public Health Agency of Canada works with a number of partners to reduce the risk of exposure to West Nile virus through education, research, prevention and response. Partners include the provincial and territorial Ministries of Health, other federal and provincial departments and agencies, and the Canadian Cooperative Wildlife Health Centre.

The Committee to Advise on Tropical Medicine and Travel (CATMAT) provides the Public Health Agency of Canada with ongoing medical, scientific and public health advice, as well as recommendations relating to the prevention and treatment of

infectious diseases and other health hazards that Canadian travellers may encounter outside Canada. For international travellers, additional guidelines are available on the CATMAT web site below.

Need More Info?

Pest Management Regulatory Agency,
Health Canada Publications Section
2720 Riverside Dr.,
A.L. 6605C
Ottawa, Ontario, K1A 0K9
PMRA Information Service:
1 800 267-6315 or (613) 736-3799
Fax: (613) 736-3758

For more information on effective control of mosquitos around your home go to:

www.hc-sc.gc.ca/cps-spc/pubs/pest/_pnotes/mosquitos-moustiques/index-eng.php

For more information on West Nile virus see:

Public Health Agency, West Nile Virus section at:
www.phac-aspc.gc.ca/wnv-vwn/index-eng.php

Health Canada's West Nile virus Web section at:
www.hc-sc.gc.ca/hc-ps/dc-ma/wnv-vno-eng.php

For more information on Lyme Disease see the It's Your Health article at:
www.hc-sc.gc.ca/hl-vs/iyh-vsv/diseases-maladies/lyme-eng.php

For additional information on mosquito diseases see the Public Health Agency of Canada's infectious disease Web section at:
www.phac-aspc.gc.ca/id-mi/index-eng.php

For additional information for international travellers, see the Committee to Advise on Tropical Medicine and Travel Web section at:
www.phac-aspc.gc.ca/tmp-pmv/catmat-ccmtmv/index-eng.php

For additional articles on health and safety issues go to the It's Your Health Web section at:
www.healthcanada.gc.ca/iyh
You can also call toll free at 1-866-225-0709
or TTY at 1-800-267-1245*