



# EWG'S ADVICE FOR AVOIDING BUG BITES

If you spend time outdoors, you face some tough choices.

Bug-borne diseases should not be taken lightly. Mosquito and tick bites can transmit life-changing illnesses like West Nile virus and Lyme disease.

**As your first line of defense, cover up with pants and long sleeves. If you want or need a bug repellent, here are EWG's top picks, based on time spent outdoors:**

Short Protection Time	Long Protection Time
Picaridin 5-10%	Picaridin 20%
DEET 7-10%	IR3535 20%
PMD 10%	DEET 20-30% (time-release products generally work over longer periods)
Other botanical repellents*	Oil of Lemon Eucalyptus 30-40%

\* Likely to contain more allergens.

**Concerned about Lyme disease?** Opt for a product with any of the repellents listed under Long Protection Time and check for ticks once indoors. Avoid using Oil of Lemon Eucalyptus or PMD on kids under 3. **Note:** Health agencies offer conflicting advice about DEET concentrations that are safe for children. Visit our website [ewg.org/research/ewgs-guide-bug-repellants/kids](http://ewg.org/research/ewgs-guide-bug-repellants/kids) for more details.

**Want to avoid mosquitoes that carry West Nile virus?** Picaridin, IR3535, DEET, Oil of Lemon Eucalyptus or PMD should work well. Choose a concentration based on the time you expect to spend outdoors. Avoid using Oil of Lemon Eucalyptus or PMD on kids under 3.

**Looking to protect your kids from bug bites?** Don't use bug repellents on infants under 6 months. Fine netting over strollers and baby carriers is the best solution. Visit our website [ewg.org/research/ewgs-guide-bug-repellants/kids](http://ewg.org/research/ewgs-guide-bug-repellants/kids) for recommendations for older children.

**What about botanicals?** If bug-borne diseases are not prevalent where you go, you can try some botanical repellents. Be aware that many contain highly concentrated allergens. Effectiveness varies widely.



# EWG'S DO'S AND DON'T'S FOR AVOIDING BUG BITES

## DO:

### Cover up

- Wear pants, socks, shoes and long sleeves, especially when venturing into heavy brush with likely bug infestations.
- Take extra precautions to avoid bug bites if you are in a high-risk area for Lyme disease, West Nile virus or other mosquito- and tick-borne illnesses.
- Use nets and or fans over outdoor eating areas and nets over strollers and baby carriers.

### Read labels

- Labels help ensure safe usage and protection from bug species known to infest your area.
- Choose a repellent concentration rated for the time span you're outdoors, but not longer.
- Use products with the lowest effective concentration of repellent chemicals, particularly on children.

### Take extra care with kids

- Keep repellents away from young children to reduce risk of accidental swallowing.
- Send kids to camp with netting for bunks.

## DON'T USE:

- Oil of Lemon Eucalyptus/PMD on children younger than 3 years old.
- More than 30 percent DEET on anyone.
- Any bug repellents on children under 6 months.
- Outdoor "fogger" insecticides. They contain more toxic ingredients than repellents applied to skin.
- Candles. They may not be effective. They emit fumes that could trigger respiratory problems.
- Aerosol sprays in pressurized containers. You'll inhale chemicals, and you could get sprayed in the eyes and face.
- Repellent mixed with sunscreen. When you reapply sunscreen every two hours as advised, you overexpose yourself to repellent.
- Bug zappers and treated wristbands. They're ineffective. Save your money.

### Also consider these additional tips:

Use products in lotion, pump or towelette form. Wash your hands after applying. Try repellents on a small patch of exposed skin before slathering all over.

Consult a physician if you are traveling out of the U.S. or need to use bug repellent daily for prolonged periods.

Check for ticks thoroughly after returning indoors and remove ticks properly.

Wash clothing and repellent-coated skin when you come indoors.