



Using Insect Repellents on Children

FACT SHEET 18-044-0316

Just the Facts...

Applying insect repellents helps protect children from insect bites, particularly bites from mosquitoes and ticks. Parents want to protect their children from insect bites and insect-borne diseases but often have questions about how to safely and properly use insect repellents on their children. This fact sheet addresses common questions about insect repellents and children and provides references for additional reading.

Why should I use insect repellent on my child?

Insects leave itchy, uncomfortable bites and can potentially transmit diseases like West Nile virus, dengue, chikungunya, Zika virus, and several tick-borne diseases such as Lyme disease and ehrlichiosis. Not only are children exposed to biting insects more often than adults, children are also more susceptible to insect-borne diseases because their immune systems are not fully developed. When applied properly, insect repellents help protect children from mosquito, tick, flea, and chigger bites.

How do I know if a repellent is safe and effective to use on my child?

Parents should always select insect repellents registered by the U.S. Environmental Protection Agency (EPA), which have been tested extensively to prove that they are both safe and effective. These products can be identified by an EPA registration number, which can be found at the bottom of the printed label on the repellent can/bottle. All EPA-registered insect repellents can be safely used on children but may have age restrictions for extremely young children. Currently, no EPA-registered insect repellent can be used on a child younger than two months of age (infants).

How do I safely apply insect repellent to my child?

Always follow the directions for use and any precautions stated on the product label. Never allow children to handle or apply repellent themselves. Apply just enough insect repellent to cover exposed skin. Applying extra repellent will not give any better or longer-lasting protection. Do not apply repellent to children's hands because children may put their hands in their mouth or touch their eyes. Do not spray the repellent directly onto a child's face. First, spray the repellent into your hands, and then use your hands to apply it to your child's face and other areas of exposed skin. Do not apply insect repellent on the eyes or lips and use sparingly around children's ears. Avoid spraying insect repellent in enclosed areas or near food, and avoid breathing in the spray during application. Wash insect repellent off skin and clothing when it is no longer needed.

Which EPA-registered insect repellents are best for exposed skin?

Scientific studies have shown that the two most effective EPA-registered insect repellents for skin application contain the active ingredients DEET (N,N-diethyl-m-toluamide) or picaridin. Products containing these active ingredients provide long-lasting protection from biting insects and are recommended by the Centers for Disease Control and Prevention (CDC).

Are DEET and picaridin safe for children?

Both DEET and picaridin are EPA-registered, meaning they have been tested extensively to prove that they are safe and effective when applied according to the product label directions. In addition, the American Academy of Pediatrics (AAP) states that



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DEET-based repellents (at concentrations of 30% or lower) are safe to use on children. The AAP has not yet issued a specific recommendation or opinion regarding the use of picaridin on children.

Can I use both insect repellent and sunscreen on my child?

Yes, you can. Parents should protect their children from sunburns and insect bites while playing and working outdoors. Begin by applying sunscreen; once it has dried, apply insect repellent on top of the sunscreen. Always read the directions on the label to find out how often you need to apply more insect repellent, which will be based on your child's activity level and the individual repellent.

What about 2-in-1 products that contain both DEET and sunscreen?

2-in-1 products that combine DEET and sunscreen are not recommended. While they are convenient, the sunscreen wears off before the DEET stops working, and reapplying more 2-in-1 product will over-expose your child to DEET.

Can I use insect repellents if my child has hypersensitive skin?

As with most substances, a small number of children may be exceptionally sensitive to a particular repellent. This sensitivity usually causes a skin reaction such as a rash or a hot sensation. If this happens, stop using the repellent immediately, wash the affected area with soap and water, and contact your healthcare provider for more guidance. If you go to a doctor, it is helpful to take the repellent or a copy of the repellent label with you.

Is it safe to use permethrin on children's clothing?

Yes, it is safe for use on children's clothing! Permethrin has been used since the 1990s as a clothing insect repellent and has an excellent safety record. In 2009, the EPA specifically studied the safety of permethrin clothing worn by teens, children, and toddlers; the EPA found that the permethrin-treated clothing met all the safety standards set for children. Permethrin is also licensed by the U.S. Food and Drug Administration for use on children in lice shampoos and scabies skin treatments.

How else can children and adults protect themselves from insect bites?

In addition to using repellent, children can also prevent insect bites by wearing long pants and long-sleeved shirts while outdoors. In tick habitats, tuck pant cuffs into socks and shirt into pants to prevent ticks from crawling underneath clothing. Use a broad-brimmed hat to prevent sunburn, and keep insects away from your child's face. Protect infants and toddlers by placing mosquito netting over strollers and car seats. At the end of the day, check children carefully for ticks and insect bites. Reduce mosquitoes around your home by getting rid of standing water in containers and toys to prevent mosquitoes from breeding. Check door and window screens for holes, and repair the screens to prevent mosquitoes from getting inside homes. Reduce tick populations by regularly mowing the lawn, getting rid of hiding or living spaces for mice and other animals, and properly disposing of food and garbage in trash cans with tight-fitting lids.

How do I safely store insect repellents?

When not using insect repellents, store them in a cool, dry place out of the reach of children, preferably in a locked cabinet.

Where can I get more information about using insect repellents on children?

American Academy of Pediatrics: <https://healthychildren.org/English/safety-prevention/at-play/Pages/Insect-Repellents.aspx>

Centers for Disease Control and Prevention: <http://www.cdc.gov/westnile/faq/repellent.html>

U.S. Environmental Protection Agency: <http://www2.epa.gov/insect-repellents/using-insect-repellents-safely-and-effectively>

U.S. Food and Drug Administration: <http://www.fda.gov/Drugs/EmergencyPreparedness/ucm085277.htm>