

# POISONology

SAFETY & FIRST AID TIPS FROM THE ARIZONA POISON AND DRUG INFORMATION CENTER

## Mosquitoes are coming...



With warm weather one uninvited guest makes its appearance at your local swim party, BBQ, or picnic – the mosquito. Choosing an insect repellent to make that outdoor experience more enjoyable and safer can be a daunting task because of all of the options. Does one product really work better than another? Does the concentration make a difference? Is one product safer than the other?

Probably the most widely recognized insect repellent in the United States is DEET, or N, N-Diethyl-meta-toluamide. DEET is available in a wide variety of concentrations, ranging anywhere from 4% to 100%.

Although a number of factors such as sweating and humidity can affect how long a product stays on the skin, the general rule of thumb is that the higher the concentration of the product, the longer you are protected from biting insects. For example, DEET 4.75% is believed to offer about 1 ½ hours of protection, and DEET 20% is believed to provide about 4 hours of protection. However, once a concentration of 50% DEET is reached, dwindling returns are seen in terms of insect repellent activity.

It is generally recommended to apply a lower concentration of DEET to the skin of children, since the product has the potential to irritate the skin, and there is some concern about possible skin absorption. Many people don't like the strong chemical odor and then use the insect repellent less. If this product is accidentally misused or swallowed, it can cause symptoms including nausea, vomiting, confusion, dizziness and seizures.

There are alternatives to DEET recommended by the Center for Disease Control and the Environmental Protection Agency. Picaridin, along with DEET, is one of the two insect repellents identified by the CDC as being most effective. Some advantages to picaridin are that it is less likely to irritate the skin and has little to no odor. Also, if it is accidentally used incorrectly or swallowed, it has a very low likelihood of causing severe problems.

Another insect repellent, called a "biopesticide" repellent, is made from the oil of lemon eucalyptus. It is believed to offer protection similar to low concentration DEET. It is only mildly irritating to the skin; however, swallowing this product could result in vomiting, drowsiness, a drop in blood pressure and seizures.

One last safety measure: Be sure to store the repellent container away from foods and other liquid medications to avoid accidents.

*If you have other poisoning concerns or questions call the tollfree national hotline at 1-800-222-1222 to reach your local poison center. If you live in Arizona outside of Maricopa County, this number will get you to our experts at the Arizona Poison and Drug Information Center in Tucson.*