



THREAT: Repellents can reduce risk of infection

Go natural to ward off the mozzies

Most of us pack insect-repellent when going on holiday, but new research shows that DEET, the active ingredient in many products, can damage or kill nerve cells. Scientists at the University of Angers in France say it should be avoided by pregnant women and children. Yet many experts argue the chemical is safe and offers the only effective protection from mosquito bites, which can cause life-threatening illness. Here, ANASTASIA STEPHENS speaks to Brian Greenwood, Professor of Clinical and Tropical Medicine at the London School of Hygiene and Tropical Medicine, to find out the truth.

WHY DO MOSQUITOES BITE US?

It is the female mosquitoes that bite as they need proteins in blood to help their eggs mature. To survive, mosquitoes feed on nectar and fruit juices from plants, not blood.

WHY DO SOME PEOPLE GET BITTEN AND NOT OTHERS?

Mosquitoes appear to be attracted by certain volatile (gas-emitting) compounds on the skin, and some people emit more of these than others.

WHY DO SOME BITES COME UP WORSE?

Itching and swelling is caused by your immune system trying to get rid of the anti-blood-clotting agents that the insects inject. Gradually, the immune system builds up a tolerance and the bites become less irritating. But everyone's immune response is different, with some more reactive than others.

IF I DON'T GET BITTEN MUCH SHOULD I BOTHER USING REPELLENT?

Yes. Just one mosquito bite can transmit infection, such as malaria. Although anti-malarial tablets offer some protection there is no true vaccine, so it is important to use a repellent. Mosquitoes transmit other viruses, including dengue fever, yellow fever, Ross River fever and the West Nile virus, some of which can be fatal.

IS DEET REALLY DANGEROUS?

If you follow guidelines and apply only once a day – even if you go swimming – it is considered safe. Some people develop allergic skin reactions. An American study at Cornell University found park rangers who used DEET were more likely to suffer from insomnia, mood disturbances and impaired cognitive function.

WHAT ARE MY OTHER OPTIONS?

Many natural insect repellents contain lemon eucalyptus or extracts of its main insect-repelling component, Para-menthane Diol. Tests at the London School of Hygiene and Tropical Medicine show Mosi-guard Natural works for six to ten hours (www.mosi-guard.com), while Blitz (£7.99, 50ml, www.b3blitz.com) works for up to ten hours. Another natural insect repellent ingredient is citriodiol.

WHAT IF YOU HAVE SENSITIVE SKIN?

Brewer's yeast is rich in B-vitamins, which are thought to make blood unattractive to the insects. Take daily B-vitamins or Brewer's Yeast capsules (www.nutricentre.com). Or lure the bugs on your patio into a trap, with the Isotronic 62150 Mosquito Sucker (£34.99, www.dontbeapest.co.uk).