

Insect Repellents

The method of action of insect repellents is not fully understood but they undoubtedly interfere with chemical stimuli which attract insects.

Factors affecting their effectiveness

Duration of action is the single most important factor in influencing efficacy. The main problem is that most people do not reapply them frequently enough. Within a short time of applying an insect repellent, its efficacy will reduce. Even when an insect repellent is advertised to have duration of up to 12 hours, it does not necessarily mean that 100% effectiveness will be maintained over the full 12 hours. Insect repellent liquid and gels are evaporated from the skin relatively quickly. There is evidence that cream formulations may last longer on the skin. Sweat from the skin will remove the repellent which is an important factor in hotter climates. Swimming and washing will remove the repellent. A certain proportion of the repellent is absorbed by the skin which also reduces its efficacy. The amount applied is the most important factor in determining duration of action and efficacy. It is important to apply insect repellents liberally to get maximum effectiveness. Insect repellents cannot be used as a means of protection overnight mainly because the length of action gives insufficient protection. When in areas affected by mosquitoes, mosquito nets should be used unless sleeping in a sealed air conditioned room.

Diethyltoluamide (DEET)

Many insect repellents available in pharmacies contain DEET, including Jungle Formula[®]. DEET has been used since 1957 and is the gold standard as an insect repellent. There has been some controversy about the safety of DEET. Studies have shown these fears to be unfounded and the risk of adverse effects is low. Most experts conclude that DEET should be used as the first choice for repelling insects, especially in areas where malaria is a risk. It should be applied at least every four hours. It is best avoided in pregnant women and young children.

Non-DEET insect repellents

Although adverse effects to DEET are very rare, it should be noted that DEET is irritant to the eyes and other mucous membranes such as the nostrils and ears. Therefore care must be taken when applying it to the face. Another potential drawback of DEET is that it is a plasticising agent meaning that it can damage any plastic it comes in contact with including plastic glasses and watch faces. Some people do not like the strong smell of DEET. Therefore because of these concerns, there are now many effective DEET free products available on the market included Autan[®].

Correct use of insect repellents

Apply only to exposed skin. For use on the face, apply the repellent directly to the palms of your hands, rub together and then carefully apply to the face, avoiding the eyes and mouth. Do not apply to broken or inflamed skin. Wash repellent off hands after application to avoid contact with eyes or mouth.

Also, wash off repellent before going to bed. Apply carefully to children and do not apply to their hands. If applying for the first time, test the product on a small area of skin in case of an allergy to the product. In summary, it is most important to apply insect

repellents frequently and liberally to ensure insect repellents work effectively. Those who claim that insect repellents don't work should apply more of the repellent and apply the repellent more frequently.

Other repellents

There is some anecdotal evidence that thiamine (vitamin B1) at a dose of 50mg per day can provide protection against insect bites. The tablets need to be taken regularly and taking thiamine should not be used as an alternative to insect repellents in malaria endemic areas. There are many natural products on the market such as citronella but their efficacy is questionable. In Whelehans, a natural product called Bug Bands[®] proves popular. It is a plastic wrist band containing natural ingredients which gives 120 hours of protection. It can be resealed, so a band can be reused over many weeks or months.

Treating insect bites

Prevention is better than cure, but even if you take precautions and use insect repellent, you may still get bitten. Many people have no reaction to insect bites. However, many people get an angry red lump called a weal on the area of skin where the insect bites. In some cases, this is exacerbated by an allergic response by the victim, which in severe cases can lead to dizziness and nausea. Even the midge, common in Ireland, can cause these reactions. If you get bitten, wash the area with soap and water or apply hydrocortisone cream to the affected area. There are many insect bite creams on the market but hydrocortisone cream is the quickest and most effective. It will reduce the redness and itch quickly. However hydrocortisone should **not** be used for a long period of time, on the face, in young children or on broken skin. Whelehans sell a less expensive but equally effective generic brand of hydrocortisone called Cortropin[®]. Antihistamine tablets available over the counter such as cetirizine will also reduce adverse reactions from insect bites. Again, Whelehans sell a less expensive generic brand of antihistamine called Cetrine[®].

Holiday Checklist

If you are not sure what you need to bring with you to ensure a safe and healthy holiday, Whelehan's provide a free holiday checklist. Simply call in store to get your complimentary checklist.

Malaria

At www.whelehans.ie, I have an article which discusses malaria prevention, symptoms and treatment.

Disclaimer: Please ensure you consult with your healthcare professional before making any changes recommended

For comprehensive and free health advice and information call in to Whelehans, log on to www.whelehans.ie or dial 04493 34591. You can also e-mail queries to info@whelehans.ie.