

# ON THE WING

**Dr Alexander Kumar** discusses diseases transmitted by mosquitoes

Recent outbreaks of infectious diseases including SARS, Bird Flu, Swine Flu, Ebola and Zika have worried many travellers. You can avoid them with these steps.

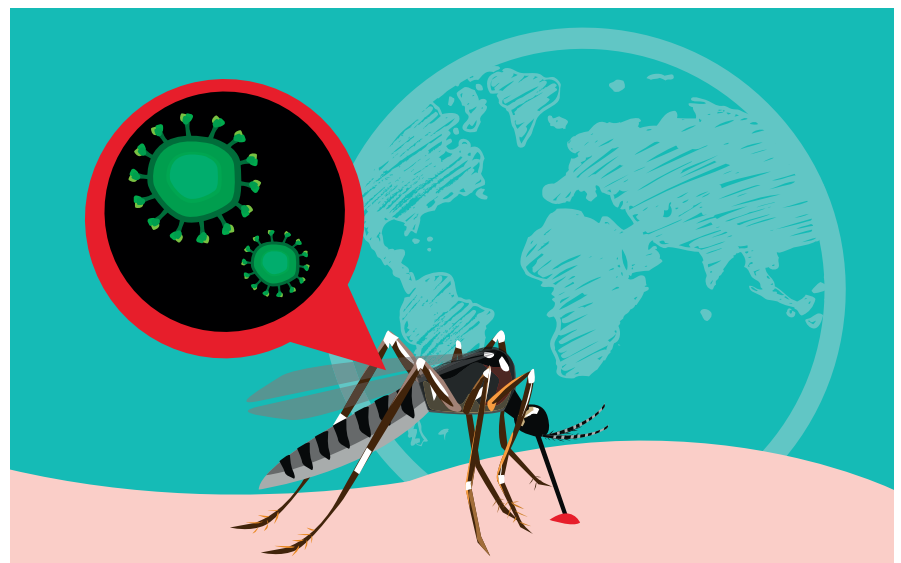
## Diseases

**Chikungunya** is found in over 60 countries across Africa and Asia, Europe and the Americas. Symptoms include fever and severe joint pain, muscle pain, headache, nausea, fatigue and rash. There is no cure, and ineffective treatment is focused on symptom relief.

**Dengue** has spread dramatically through sub-tropical climates, particularly in Asia and Latin America. Symptoms are similar to Chikungunya, ranging from a flu-like illness to occasionally a severe form that can be lethal. Previous infection can cause more severe reactions a second time. There is no specific treatment.

**Malaria** is a sometimes fatal infection transmitted in infected bites. Over 90 countries have ongoing transmission. There are various prevention medications, some of which are used as treatments. Due to their misuse and biological factors, resistance is now a worry. As with antibiotics, you can help the future of mankind by completing your prescribed course as instructed.

**Yellow fever** is rare but can be fatal. The virus is endemic in Africa and Central and South America. Symptoms include



headache, jaundice, muscle pain, nausea, vomiting, fatigue and fever. Only a minority of infections develop severe symptoms. There is currently no specific treatment. An effective vaccine is only needed once for life-long protection.

**Zika** is transmitted by mosquitoes and can also be sexually transmitted between humans. See our last issue.

## Preventative measures

Know your enemy. Consult these reliable websites: Fitfortravel by NHS Scotland (<http://www.fitfortravel.nhs.uk/home.aspx>), Centers for Disease Control and Prevention ([www.cdc.gov/](http://www.cdc.gov/)), and the World Health Organization ([www.who.int/](http://www.who.int/)). These have maps of risk areas for all these diseases, updated to include shifting patterns and new outbreaks.

The easiest and best prevention is vaccination. This is available for some of these infections (Yellow Fever, Japanese Encephalitis) but not others (Zika, Malaria, Chikungunya). A new vaccine for Dengue is being tested. Yellow Fever vaccination is compulsory in some countries.

Remember vaccines need time (days to weeks) or a course of several jabs, to build sufficient protection. So plan them

well in advance, through your local travel health service or specialist clinic.

In addition, arm yourself with effective insect repellent. Evidence-based insect repellents are necessary in risk areas. The active ingredient to look for is Permethrin, which is commonly used as a treatment for clothing, nets and accessories. Apply repellent regularly, particularly at dusk and dawn, and reapply after water-based activities.

Don't forget to use a mosquito net to protect against night-biting mosquitoes. Insecticide-treated bed nets are effective. Using a fan (to increase air flow) or air-conditioning (mosquitoes avoid cooler areas) can help deter mosquitoes from your sleeping area.

Wear long sleeves and trousers to prevent bites. You can treat your clothing with insecticide (albeit not your best silk dress) or buy pre-treated clothing.

And finally, avoid or reduce visits to risk areas. If travel isn't necessary but is risky, maybe think twice about your itinerary.

*Dr Kumar has travelled in over 90 countries, including working with Ebola in West Africa and Zika in Brazil.*