

Another Malaria Drug Is Failing to Work

Malaria causes over 400,000 deaths a year. Ninety-two percent of those deaths occur in Sub-Saharan Africa, although a total of 91 countries still report cases each year. We know that malaria is primarily spread through the *Plasmodium falciparum* and *Plasmodium vivax* species of mosquitos, but recent developments have made it clear that we need to adjust our prevention and treatment of the disease.

Typically, malaria prevention takes the form of insecticides sprayed inside houses and the deployment of nets treated with insecticides. The two most common species of mosquito spreading malaria have different territories. *Plasmodium falciparum* is concentrated in Africa, and *Plasmodium vivax* is everywhere else. *Plasmodium vivax* is already displaying resistance to the most popular antiparasitics, especially in South-East Asia. A team in London is now reporting the first failure of the anti-parasitic drug artemether-lumefantrine contracted from travel in Africa.

Heed the Resistance

More than 1,500 people a year in the U.K. are treated for malaria after foreign travel. The four cases of malaria that resisted the usual treatment were from individuals who traveled to Uganda, Angola, and Liberia. The treatment failures happened from October 2015 to February 2016, and the four patients were eventually treated with other means. Four doesn't seem like many cases, but those four cases are from over a year ago and reported in a country where malaria is exclusively imported.

Drugs and Drug Combinations are Failing

The World Health Organization recommends that malaria drug regimens be routinely monitored. This is not the first time a treatment for malaria has failed. Another common malaria treatment is artemisinin-based combination therapy, a mix of artemisinin and piperaquine. While malaria has officially shown resistance to artemisinin (a derivative of sweet wormwood) since 2008, the combined use of the drug with piperaquine has yielded results until last year, when Cambodian doctors reported the drug combination had completely failed.

Controlling malaria and the carriers of the disease is becoming more difficult for a variety of reasons, and malaria's actual drug resistance is not the only uprising occurring. Mosquitos, malaria's long term carrier and partner-in-crime, are developing a resistance to the pesticides used to reduce their numbers. Mosquito netting sprayed in insecticide is a common prevention strategy, and more nets are being sprayed with two different insecticides. Who knows how long the double dose of insecticide will work, and at what point is the constant exposure to these pesticides considered too harmful for humans?

Running a Rigged Race

Here's the bottom line: the bacteria and diseases are evolving and we aren't. In fact, our ability to fight off infection through a strong immune system and a healthy, varied gut environment is going backward.

Scientists see this drug resistance as a warning sign rather than an invitation to panic. But these solutions do not help us to reclaim the microbiome diversity that we need to

maintain a strong immune system. Diseases like malaria have already proven that conventional anti-parasitics have a shelf life. We've passed the warning sign, but have we hit the brakes yet?

Recommended Reading:

- *How To Detoxify and Heal From Vaccinations – For Adults and Children*
- *How to Detoxify and Heal the Lymphatic System*
- *Common Parasites and How to Kill Them*
- *Destroy Parasites With Natural Remedies*
- *How Echinacea Boosts the Immune System*

Sources:

- *Malaria Drugs Fail for First Time on Patients in UK – BBC News*
- *Malaria – World Health Organization*
- *Malaria Drugs' Complete Failure Tracked – BBC News*