

Mefloquine (Lariam) Action

A volunteer information and support service for people suffering from mefloquine toxicity
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Balance System (Vestibular) Fact Sheet

1. Mefloquine is an anti-malaria drug known to be able to damage the balance (vestibular system). Damage to the vestibular system is listed in the drug's official product information (label). *For the latest mefloquine label, see <http://www.lariaminfo.org/information/labeling.shtm>.*

2. People all over the world have been diagnosed with post-mefloquine vestibular problems. Such reactions have become a significant issue among GIs returning from Afghanistan, Kuwait, and other countries where malaria prophylaxis is necessary. The US Navy has diagnosed at least 19 service persons who developed balance system damage after taking mefloquine to prevent malaria. Vestibular damage can be permanent.

3. Glossary of terms

Mefloquine is the generic name of a pharmaceutical drug used to prevent and treat malaria. It is also known by the trade name Lariam (Roche Pharmaceuticals). The brand name drug is no longer for sale in the US but several companies sell generics.

Neurotologist – A medical doctor (MD) who specializes in inner ear and balance system disorders. Neurotologists usually work in the Ear, Nose and Throat (ENT) or Otolaryngology departments of major (university) hospitals. They may work in Hearing and Balance Centers. They are sometimes called otoneurologists.

Ototoxin - Any toxic substance that causes nerve damage to the inner ear and/or vestibular (balance) system. "Oto" means "ear."

Vestibular system— Balance is one of the body's primary functions. The brain processes information from your eyes, inner ears, and muscles to keep you upright and balanced. Mefloquine can damage the 8th cranial nerve, which is responsible for hearing and transmitting signals to and from the inner ear. If mefloquine (or another ototoxin) interferes with the normal transmittal process, the brain cannot do its job efficiently and physical and psychological symptoms can arise. (See #4.)

4. Symptoms of balance disorders

People with balance system damage never have just one symptom. They have several symptoms that can be subtle and that might seem unrelated. Yet when taken as a whole, the seemingly unconnected symptoms can indicate damage to the balance system. Some of these symptoms include:

Balance problems: Dizziness, vertigo, nausea, vomiting, feeling seasick or like you have a hangover, inability to concentrate, poor memory, inability to follow directions, confusion, disorientation

Visual problems: letters jump on the page, horizon shifts, silverware moves, words and letters blur, reading is difficult, comprehension is poor, bright and flickering lights are intolerable

Hearing problems: ears click, pop, buzz, feel full; loud noises and crowded conditions (such as malls, ball games, airports) make you feel ill

Coordination problems: feeling that a weight is on your head, lack of balance, feeling like you are in a small boat

Emotional problems: depression, loss of self esteem, loss of self confidence and self reliance, anxiety, phobias, panic attacks, easily distracted

Other problems: headaches, overwhelming fatigue, can't complete normal daily tasks; constant exhaustion

5. How to find out if you have vestibular (balance system) damage

A visit to a neurotologist or other balance specialist is the best way to diagnose the cause of dizziness and other symptoms that stem from inner ear and balance disorders. Traditional neurologists may not pick up on vestibular damage.

The **Vestibular Disorders Association (VEDA)** maintains a list of neurotologists and other balance specialists (www.vestibular.org). VEDA does not rank the clinicians or clinics or make endorsements. VEDA is the “go to” place for information about balance disorders.

Check the telephone directory for neurotologists or otoneurologists. You might also check local balance support groups to find names of specialists. Unfortunately, MRIs, CAT scans, X-rays, etc. are unable to diagnose vestibular damage. Before making an appointment with a balance disorder specialist, ask if they use the tests listed in #6.

6. Tests to diagnose vestibular damage

A range of unique tests are used to diagnose and assess vestibular damage. A hearing evaluation may also be performed. Vestibular testing typically includes three main types:

- [Electronystagmography \(ENG, VNG\)](#)
- [Rotation tests](#)
- [Computerized Dynamic Posturography \(CDP\)](#)

For more information about testing AND balance disorders, visit the [Vestibular Disorders](#) website OR [Chicago Dizziness and Hearing](#) website.

For details about the many other adverse effects mefloquine can cause, visit <http://www.lariaminfo.org>.