



# Mefloquine (Lariam®)

## Information for Military Service Members and Their Families



A Collaborative Effort of DHCC, AFIERA, NEHC, USACHPPM, & WRAMC

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***Mefloquine (Lariam®) is a widely used prescription medicine that is highly effective at preventing malaria, especially in areas where malaria has developed a resistance to other preventive medicines. Malaria is transmitted through the bite of an infected mosquito. Each year more than 300 million cases of malaria are diagnosed world-wide and more than 1 million people die of the disease. Malaria occurs in over 100 countries and territories around the world. The best way to deal with malaria is to prevent it. Most people can take mefloquine to prevent malaria without side effects but, in rare cases, it may cause physical and potentially serious nervous system and behavioral problems.***

### **HOW IS MEFLOQUINE USED?**

Mefloquine is one of a few medicines recommended by the Centers for Disease Control and Prevention to prevent malaria, especially in areas where malaria has become resistant to other medications. It offers the advantage of being taken once a week rather than once a day. You should begin taking the medicine at least one week before deployment (or 2 to 3 weeks if instructed by your health care provider), continue to take it once a week during deployment, and take it for 4 weeks more after leaving a malaria area. It is easier to remember and more effective if you take the medicine on the same day of each week. Avoid drinking alcohol while taking mefloquine, since its use may interfere with the medication's effectiveness and could cause more serious side effects.

Mefloquine must be entered in your health record like other medications you may be taking.

### **WHAT INFORMATION SHOULD I RECEIVE ABOUT MEFLOQUINE?**

The U.S. Food and Drug Administration developed a Medication Guide for mefloquine in 2003 in collaboration with its manufacturer. This Medication Guide provides information on the risks of malaria, the risks and benefits of taking mefloquine to prevent malaria, and the rare but potentially serious side effects, including mental side effects, associated with this medicine. The Medication Guide must be given to everyone who is given mefloquine. Make sure that you receive a copy of the Medication Guide from your health care provider before you begin taking the medication. The Medication Guide is also available at <http://www.fda.gov/medwatch/SAFETY/2003/LariamMedGuide.pdf>.

### **WHAT ARE COMMON SIDE-EFFECTS?**

Side effects occur among people who take mefloquine at rates similar to other malaria medicines, although most people

do not experience them. These side effects can include being unable to sleep, unusual dreams, lightheadedness, headache, dizziness, visual disturbances, ringing in the ears, rash, irritability, and gastrointestinal symptoms, such as nausea, vomiting, and diarrhea. Vomiting and nausea are often the most troubling side effects. You can help to prevent vomiting by taking mefloquine with a meal and at least 8 ounces (a cup) of water. If you have these side effects, see your health care provider as soon as possible.

### **WHAT ABOUT BEHAVIORAL SIDE EFFECTS?**

Rare instances of suicide in patients taking mefloquine have been reported but no studies have proven that mefloquine use results in suicide, suicidal ideas, suicide attempts, or any other violent behavior. Even so, if you have any thoughts of suicide, consult a health care professional.

Other potential behavioral side effects may include anxiety, paranoia (suspicion of everyone), depression, agitation, restlessness, mood changes, panic attacks, forgetfulness, hallucinations (seeing or hearing things that are not there), aggression, and psychotic behavior (delusions or decreased "reality testing"). Unusual side effects that can impair reaction time and thinking include nerve problems, confusion and disorientation, convulsions, psychosis, nightmares, dizziness, and loss of balance.

Serious side effects occur most often among those who consume alcohol while taking mefloquine. Therefore, avoid using alcoholic beverages while taking this medicine.

If you have any of these changes in behavior, go for a medical evaluation immediately. Delay could put you or others at risk.

Note that normal reactions to deployments and combat stress may be similar to both the common and behavioral side effects of mefloquine.

### **WHO SHOULD NOT TAKE MEFLOQUINE?**

You should not take mefloquine if you have clinical depression or had clinical depression recently, have had recent mental illness, have had seizures, or are allergic to mefloquine or related medications such as quinine or quinidine. If you have had these conditions, go to a health provider to determine if you should use a different anti-malaria medication.

### **WHAT SHOULD I AVOID WHILE TAKING MEFLOQUINE?**

Avoid using alcohol while taking mefloquine. Also avoid other anti-malaria medicines such as halofantrine, quinine, quinidine, or chloroquine with mefloquine because of the potential for seizures, heart problems, or death. Do not take mefloquine if you are pregnant.

### **CAN MEFLOQUINE BE USED DURING PREGNANCY OR BREASTFEEDING?**

Malaria is a serious illness that is dangerous to both the mother and unborn baby. If you are a woman of childbearing age, you must use reliable birth control while taking mefloquine and for up to three months after the last dose so you do not get pregnant. If you are pregnant, discuss all your medications, including mefloquine, with your health care provider prior to use. Your health care provider can determine if you need to take mefloquine or a different medication to prevent malaria.

### **WHAT SHOULD I TELL MY HEALTH CARE PROVIDER?**

Always be open and honest with your health care provider. Withholding information from your health care provider can be dangerous to your health. The information below will help your health care provider determine the best medicine for you.

Tell your health care provider if you:

- Have experienced depression, mental illness, or seizures.
- Are allergic to mefloquine or related medications.
- Have heart disease.
- Are pregnant or are breast feeding.
- Have liver problems.

- Are taking other medications, including non-prescription medications and dietary or herbal supplements.

Tell your provider if you plan to drink alcohol while taking mefloquine since that may interfere its effectiveness.

### **BLOOD DONATIONS**

If you spent six months or less in a malarial area, you should not donate blood for one year after leaving that area. If you spent more than six months in a malarial area or had malaria, you should not donate blood for three years after leaving the area or after successful treatment of malaria.

### **HOW ELSE CAN I PREVENT MALARIA?**

No medicine is 100 percent effective. Therefore, you should carry out other prevention efforts including proper wearing of the uniform, proper use of bed netting at night, and proper use of insect repellents on clothing and skin.

Specifically, be sure to:

- Eliminate mosquito-breeding sites by emptying water collected in outdoor containers or debris.
- Remain in well-screened areas, particularly at dawn, dusk, and early evening when mosquitoes are most active.
- Use mosquito nets.
- Wear loose clothing that covers most of the body.
- Soak or spray bed nets and tents with permethrin.
- Wear permethrin treated clothing with DEET insect repellents on exposed skin.
- Apply insect repellent that contains DEET (N,N-diethylmetatoluamide) to any exposed skin when traveling in environments with biting insects.

### **WHAT ARE THE SYMPTOMS OF MALARIA?**

If you develop fever, chills, and other flu-like symptoms including headache while in or after returning from an area with malaria, you should see your health care provider for diagnosis and treatment without delay.

**WHERE CAN I GET MORE INFORMATION?****Mefloquine information may be found at the following web sites:**

FDA Mefloquine (Lariam) Medication Guide -- <http://www.fda.gov/medwatch/SAFETY/2003/LariamMedGuide.pdf>

FDA Mefloquine Medication Label -- [http://www.fda.gov/medwatch/SAFETY/2003/Lariam\\_PI.pdf](http://www.fda.gov/medwatch/SAFETY/2003/Lariam_PI.pdf)

**Malaria information** may be found at the following web sites:

Centers for Disease Control and Prevention -- <http://www.cdc.gov/ncidod/dpd/parasites/malaria/default.htm> and

<http://www.cdc.gov/travel/diseases/malaria/index.htm>

PDHealth.mil -- <http://www.pdhealth.mil/malaria.asp>

**CHPPM Deployment Medication Information Sheet (DMIS)**

<http://chppm-www.apgea.army.mil/dmis>

**DoD Deployment Health Clinical Center at Walter Reed Army Medical Center**

Phone: 866.559.1627 Toll free from Europe: 00.800.8666.8666 Internet URL: <http://www.pdhealth.mil/>

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