# Malaria Prophylaxis for Primary Care Providers n

Refer to <u>CDC: Travelers' Health (wwwnc.cdc.gov/travel)</u> for recommendations or <u>Heading Home Healthy (www.headinghomehealthy.org)</u> to enter patient information including age, reason for travel, and medical conditions.



### Adults (not pregnant or planning to get pregnant)

#### **Widely prescribed and convenient:** Atovaquone/proguanil (Malarone)

There are other malaria prophylaxis medications available.\* Clinicians should consider planned destination, length of travel, underlying medical conditions, interactions with chronic medications, allergies, side effects, and cost.

\*Doxycycline and Mefloquine also available. Chloroquine resistance is widespread. Refer to <u>CDC Yellow Book: Yellow Fever Vaccine & Malaria</u> <u>Prevention Information, by Country</u> (wwwnc.cdc.gov/travel/yellowbook/2024/preparing/yellow-fever-vaccinemalaria-prevention-by-country#5853).

### **Pregnant people** (or planning to get pregnant)

CDC recommends Mefloquine use in pregnant women for prevention across all trimesters. **Children** (under 18 years old)

DEPARTMENT

All children traveling to an area where malaria chemoprophylaxis is indicated should be offered medication. Choice depends on age and other factors similar to adults.

Commonly used agents include:

- Malarone
- Mefloquine (once a week)
- Doxycycline (children ≥ 8 years)

### CDC: Choosing a Drug to Prevent Malaria (www.cdc.gov/malaria/hcp/drug-malaria/index.html)

- Malaria prophylaxis should be used alongside other prevention methods like mosquito repellent, protective clothing, and insecticide-treated nets.
- The most prescribed malaria medications are Malarone (Atovaquone/Proguanil) and Doxycycline, with Mefloquine also used, particularly in pregnancy. Studies show Malarone and Doxycycline are as effective for short-term travelers but have fewer side effects than Mefloquine (refer to back side for black box warning information).
- Discuss insurance coverage and cost. Share "It Costs How Much? What to do if your travel medication is too expensive" handout at <u>Materials & Resources: Travel Planning</u> (www.health.state.mn.us/diseases/travel/materials.html#plan).
- Check different pharmacy costs, discount prescription websites (e.g., GoodRx, CostPlus), and look for coupons. These resources are provided as references and examples. Their listing does not constitute any official position of the Minnesota Department of Health (MDH) or imply endorsement by MDH.

# **Choosing an Antimalarial Medication**



OPTIONS	PROS	CONS
Malarone (atovaquone/ proguanil)	<ul> <li>Well-tolerated</li> <li>Good for last-minute travelers (can start 1-2 days before arrival)</li> <li>Short duration – taken for only 7 days after returning</li> <li>Pediatric tablets available</li> </ul>	<ul> <li>Should be avoided during pregnancy and breastfeeding if infant &lt; 5 kgs</li> <li>Only used in infants ≥ 5 kgs</li> <li>Contraindicated in chronic kidney disease (GFR &lt; 30)</li> </ul>
Doxycycline	<ul> <li>Good for last-minute travelers (can start 1-2 days before arrival)</li> <li>May be lower cost</li> </ul>	<ul> <li>Contraindicated during pregnancy and for children &lt; 8 years old</li> <li>Must be taken for 4 weeks after leaving a malaria-endemic area</li> <li>Possible gastrointestinal side effects; take with food to prevent nausea</li> <li>Increased sun sensitivity; patients must use sunscreen and protective clothing</li> <li>Take with plenty of fluids and remain upright for 30 minutes afterward to prevent pill esophagitis</li> <li>May cause vaginal candidiasis in women; consider prescribing an antifungal for travel</li> </ul>
Mefloquine	<ul> <li>Once weekly (ideal for those averse to pills)</li> <li>Safe for infants of any weight</li> <li>Only pregnancy-safe option for chloroquine-resistant areas</li> </ul>	<ul> <li>Black Box warning for neurologic and psychiatric effects including seizures, depression, and psychosis even after its discontinuation: <u>FDA Drug Safety Communication: FDA approves label changes for antimalarial drug mefloquine hydrochloride due to risk of serious psychiatric and nerve side effects (www.fda.gov/drugs/drug-safety-and-availability/fda-drug-safety-communication-fda-approves-label-changes-antimalarial-drug-mefloquine-hydrochloride)</u></li> <li>Cannot be used in patients with a seizure disorder or certain psychiatric conditions</li> <li>Not recommended for patients with cardiac conduction issues</li> <li>May cause sleep disturbances, nightmares, dizziness, and anxiety</li> <li>Long duration – start 2 weeks before arrival and continue for 4 weeks after returning</li> </ul>
Chloroquine	<ul> <li>Once weekly</li> <li>Safe in pregnancy</li> <li>Suitable for children</li> <li>Can take with or without food</li> <li>Hydroxychloroquine substitute if needed</li> </ul>	<ul> <li>Only for <i>P. vivax</i> and limited <i>P. falciparum</i> areas – DO NOT USE in chloroquine-resistant regions: <u>CDC Yellow Book: Yellow Fever Vaccine &amp; Malaria Prevention Information, by Country</u> <u>(wwwnc.cdc.gov/travel/yellowbook/2024/preparing/yellow-fever-vaccine-malaria-prevention-by-country#5853)</u></li> <li>May worsen psoriasis</li> <li>Highly toxic to children in overdose</li> <li>Long duration – start 2 weeks before arrival and continue for 4 weeks after returning</li> </ul>

There are other antimalarials that can be used (e.g., primaquine, tafenoquine) but should only be used by experienced providers in patients without G6PD deficiency. Learn more: <u>CDC: Choosing a Drug to Prevent Malaria (www.cdc.gov/malaria/hcp/drug-malaria/index.html)</u>