

# Medicines for the Prevention of Malaria While Traveling

## Doxycycline

### What is doxycycline?

Doxycycline is an antibiotic that also can be used to prevent malaria. It is available in the United States by prescription only. It is sold under multiple brand names and it is also sold as a generic medicine. It is available in tablets, capsules, and an oral liquid formulation. Two equally effective types of doxycycline are available, doxycycline hyclate and doxycycline monohydrate.

Doxycycline can be prescribed by itself for the prevention of malaria or in combination with another medicine for treatment of malaria.

This fact sheet provides information about its use for the prevention of malaria infection associated with travel.



### Who can take doxycycline?

Doxycycline can be prescribed to adults and children who are at least 8 years old.

### Who should not take doxycycline?

It should not be used by pregnant women. It should not be given to children under the age of 8 years.

### How should I take doxycycline?

Both adults and children should take one dose of doxycycline per day starting a day or two before traveling to the area where malaria transmission occurs. They should take one dose per day while there, and for 28 consecutive days after leaving.

The daily dosage for adults is 100mg per day.

Your doctor will have calculated the correct daily dose for your child based on the child's weight. The child's dose should not exceed the adult dose of 100mg per day.

Always take doxycycline on a full stomach with a full glass of liquid. Avoid milk and other dairy products within a couple of hours of taking your doxycycline dose. Avoid lying down for 1 hour after taking doxycycline to prevent irritation in your throat.

### Where can I buy doxycycline?

Antimalarial drugs are available in the United States by prescription only. Medicines should be obtained at a pharmacy before travel rather than in the destination country. Buying medications abroad has its risks: the drugs could be of poor quality, contaminated, or counterfeit and not protect you against malaria.

### Will doxycycline interact with my other medications?

Some other drugs can interact with doxycycline and cause you problems. Your doctor is responsible for evaluating the other medicines you are taking to ensure that there are no interactions between them and doxycycline. In some instances, medicines can be adjusted to minimize the interaction. You can also ask your pharmacist to check for drug interactions.

For example, people taking the common blood-thinning medicine called Coumadin (warfarin) may be at an increased risk for bleeding if they take doxycycline. If there are no alternatives, the Coumadin dose can be adjusted allowing you to take both medicines safely. Certain antacids (containing calcium or magnesium) should also be avoided while taking doxycycline.

**Malaria is a serious disease that can cause death if not treated right away. It is caused by a parasite that can infect a certain type of mosquito which feeds on humans.**

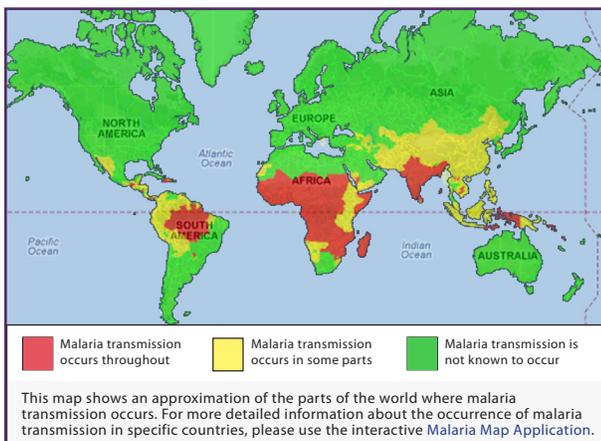
**About 1,500 cases of malaria are diagnosed in the United States each year, almost all in travelers arriving from parts of the world where malaria occurs.**

# Doxycycline

## In what parts of the world can doxycycline be used for prevention of malaria in travelers?

Currently doxycycline can be taken in any part of the world where malaria occurs.

CDC keeps track of all the places in the world where malaria transmission occurs and which malaria drugs that are recommended for use in each place. This information can be found using the malaria map on the CDC website: <http://www.cdc.gov/malaria/map/index.html>.



## What are the potential side effects of doxycycline?

The most common side effects of doxycycline are sun sensitivity (a person can get a sun burn more easily than normal). To prevent sun burn, avoid midday sun, and wear a high SPF sunblock.

Doxycycline may also cause nausea and stomach pain. These side effects can often be lessened by taking doxycycline with food. Doxycycline monohydrate, the more expensive type of the drug, is less likely to upset the stomach than doxycycline hyclate. Your pharmacist may be able to dispense one type or the other if you prefer.

Women who use doxycycline may develop a vaginal yeast infection. You can either take an over the counter or prescription medication if vaginal itching or discharge develops.

All medicines may have some side effects. Minor side effects such as nausea, occasional vomiting, or diarrhea usually do not require stopping the antimalarial drug. If you cannot tolerate your antimalarial drug, see your health care provider; other antimalarial drugs are available.

## Other considerations

- Good for last-minute travelers because the drug is started 1-2 days before traveling to an area where malaria transmission occurs
- Some people are already taking doxycycline regularly to prevent acne. In those instances, they do not have to take an additional medicine
- Doxycycline tends to be the least expensive of all the antimalarial medicines, so it might be preferred especially for trips of long duration.
- Doxycycline can also prevent some additional infections and so it may be preferred by people planning to do lots of hiking, camping, and wading and swimming in fresh water.

## How long is it safe to use doxycycline?

CDC has no limits on the use of doxycycline for the prevention of malaria. There is no evidence of harm when the drug has been used for extended periods of time.

## For more information:

Check out the CDC malaria website at [www.cdc.gov/malaria](http://www.cdc.gov/malaria)

Health-care providers needing assistance with diagnosis or management of suspected cases of malaria should call the CDC Malaria Hotline: 770-488-7788 or 855-856-4713 toll-free (M-F, 9am-5pm, eastern time).

Emergency consultation after hours, call: 770-488-7100 and request to speak with a CDC Malaria Branch clinician.

## Prevent Malaria

- Take an antimalarial drug.
- Prevent mosquito bites.
- If you get sick, immediately seek professional medical care.