

Insect Precautions

General Information

Insects transmit bacterial, viral and parasitic diseases such as:

- day-biting mosquitoes transmit yellow fever, dengue viruses and Zika
- evening-biting mosquitoes transmit malaria and Japanese encephalitis virus
- tsetse flies can transmit African sleeping sickness
- sandflies can transmit leishmaniasis.

There are preventive medicines for malaria and vaccinations for yellow fever and Japanese encephalitis virus, but these measures do not eliminate the risk. There is no vaccine for dengue and many other diseases transmitted by insects.

How to Reduce Insect Bites

To help reduce the chance of getting insect bites, use the following guidelines.

- Wear light-colored clothing, long-sleeved shirts, and long pants that you can tuck into boots or socks. Wear shoes. Avoid wearing perfume or perfume-scented products.
- Use insect repellent that contains 30 percent DEET (such as Ultrathon® for adults). Use it on exposed skin when you are outside in high-risk areas, according to package directions.

Apply sunscreen 15 minutes before you apply the repellent. Use a 10 percent DEET on children (Skidattle®) every 6 hours.

- Spray permethrin (Fite Bite® or Repel®) on hats, clothing, footwear, mosquito nets and camping gear. It will last for three weeks even if you wash the clothes. Spray it around your bedroom each evening. You can buy it at recreational stores.
- If you are not sleeping in a well-screened or air-conditioned room, use a mosquito net. Spray the net with permethrin. You can buy mosquito netting at recreational or military surplus stores.

Malaria and Medicines

Malaria is a serious, sometimes fatal, disease caused by a parasite. The disease is spread by the bite of a malaria-carrying mosquito. Malaria occurs in more than 100 countries and territories.

Large areas of Central and South America, Hispaniola (Haiti and the Dominican Republic), Africa, the Indian subcontinent, Southeast Asia, the Middle East, and Oceania are considered malaria-risk areas.

Symptoms of malaria include fever and flu-like illness, including shaking chills, headache, muscle aches and tiredness. Nausea, vomiting and diarrhea may also occur.

Symptoms usually begin 10 days to 4 weeks after infection, but you may feel ill as early as eight days or up to 1 year later. If not treated right away, malaria may cause kidney failure, seizures, mental confusion, coma, and death.

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The following are common medicines to take to help prevent malaria.

- Take chloroquine (Aralen®) for 1 week and mefloquine (Lariam®) for 2 weeks before you enter a malaria-risk area. Take the medicine with food on the same day each week which you are away, and for 4 weeks after you leave the area.
 - Chloroquine is used only in Mexico, Haiti, the Dominican Republic, Central America and the Middle East.
- Take Malarone™ (a combination of atovaquone and proguanil hydrochloride) for 2 days before you enter a malaria-risk area. Take it each day until 7 days after you leave the area.
- Take doxycycline, an antibiotic, to prevent mefloquine-resistant malaria. Take it for 2 days before you enter a malaria-risk area. Take it each day until 4 weeks after you leave the area.

No prevention is 100 percent effective. If you show signs of malaria, please see your health care provider right away and remind him or her of your travels.

Medicine General Information

- Take your medicine in the morning with food.
- If you vomit within 1 hour of taking the medicine, take another pill.
- Get a prescription for another malaria medicine if you cannot tolerate the one you are taking. Do not just stop taking your original medicine.

Medicine Side Effects

All medicines have side effects. Unless the side effects are more serious than the risk of malaria, do not stop taking the medicine. General side effects can include nausea, occasional vomiting or loose stools.

- mefloquine (Lariam®). Side effects can include dizziness, nausea (dizziness can affect 12 percent of long-term users), vivid dreams, hallucinations, anxiety, altered sleep patterns, seizures or psychosis.

Hallucinations, anxiety, altered sleep patterns and psychosis are more common in people who have depression. Do not take mefloquine if you have heart conduction defects, seizures or psychosis.
- Malarone™ (a combination of atovaquone and proguanil hydrochloride). Side effects can include headache or abdominal pain.
- chloroquine (Aralen®). Side effects can include nausea, diarrhea, headache, blurred vision, itching, psoriasis.
- doxycycline. Side effects can include rash, sun sensitivity, yeast infections (in women), acid reflux-type pain.

Medicine Use and Pregnancy

The risk of malaria to a pregnant person and an unborn child is high. If you are pregnant:

- you may take chloroquine (Aralen®), mefloquine (Lariam®), and Malarone™ (a combination of atovaquone and proguanil hydrochloride)
- do not take doxycycline.