

HEALTH MATTERS: Vaccinations

The following information is intended for you to prepare for your trip with us. We are not doctors nor are prescribing any medications or course of action. You need to speak to your doctor and or a clinic that specializes in international travel for any advice and prescriptions. You are responsible for arriving at your starting point well prepared in advance and that is why we recommend you begin your research as soon as possible as some medicines require time to take effect.

Whether you are an international traveler or not, you should have many of these vaccinations already since childhood. You should look into these if you are traveling to under-developed countries or regions.

Many developing nations (including developed countries) have the same basic problems; to develop an infrastructure and the corresponding health centers throughout varied and remote geographical regions. Due to the geographical and climatic impediments, some areas of some countries develop quicker than others and consequently have more infrastructure and health services than others. Nonetheless, this should by no means impede your desire to travel to abroad, as it is a world full of wonderful surprises. Just prepare and educate yourself about the countries you plan to visit and use common sense - you will be fine.

Before traveling to any developing nation, it is wise to consult with your local health centers that are familiar with worldwide travel and especially to the Americas, Africa and Asia. Depending on the region that you will visit in different countries some vaccinations are necessary and others you do not need to have or be concerned with.

Contact: Centers for Disease Control and Prevention: 404-332-4559 or <http://www.cdc.gov>

Timing of Vaccinations:

Most vaccinations should begin at least six weeks prior to departure but there are exceptions. In general, inactivated vaccines or toxoids (like cholera, typhoid, rabies, plague, influenza, hepatitis B, diphtheria, or inactivated polio) can be given simultaneously in different areas of the body. Live vaccines (like rubella, mumps, measles and oral polio) can be given simultaneously with an inactive vaccine **except** with those that are for yellow fever and cholera. The vaccine for Hepatitis A (immune globulin) can be given simultaneously with inactivated vaccines. Live vaccines should be given at least two weeks before immune globulin or three to five months afterwards.

Travel to some countries can be divided into two areas: the **Highlands** and the **Lowlands**. Some vaccines are more related to highland diseases and others are limited to the lowlands (i.e.: Yellow Fever & Malaria)

Some **recommended vaccines** you should **ask** your doctor about are:

Hepatitis A: Hepatitis A is a viral infection that is transmitted by contaminated food or water or even via direct person-to-person contact. **Havrix** (Hepatitis A vaccine) is recommended for those traveling to areas where sanitation may be poor. The injection is one shot for adults and two injections to children (17 and under) one month apart. It is recommended that a booster shot be given six to twelve months apart. The vaccination takes effect at least three weeks after the initial injection. If travelers are going to high-risk areas before the three weeks they should also get a shot of hepatitis immune globulin - of which a single injection will be good for about five months depending on the size of the dose.

Hepatitis B: Anyone who will be coming into contact with body fluids, blood or expect to engage in sexual activity with the local population should get this vaccine. Three injections are spaced six months apart with minimal side affects.

Measles, Mumps, Rubella, Diphtheria and Polio. These are generally childhood immunizations that all travelers should keep up to date. **Tetanus** should be updated with a booster every ten years. Travelers that have not had or do not remember having two doses of measles vaccine should look into getting a single dose of the vaccine before your trip. For those that have previously had a primary polio series but not a booster should get a dose of oral polio vaccine (OPV).

Typhoid: Typhoid Fever is a bacterial infection that is transmitted by contaminated food and water. Injectable vaccine is still available but a new oral vaccine is the preferred method. The injectable vaccine consists of two shots at least four weeks apart and is 70% effective. There are some minor side affects and discomfort for the first few days. It lasts for three years. The oral vaccine consists of taking capsules over eight days. A booster is required every seven years.

Cholera: The chances for most travelers to contract this disease is very low and this vaccine provides only minimum protection and is

believed to be only 50 % effective. Vaccination is recommended only to those going to areas known to have a Cholera epidemic. It takes effect six days after vaccination and last for only six months. A new vaccine should be coming out soon and will provide protection for up to three years. It is wise to try to consume "safe" foods (well cooked, not semi or raw foods) and drink water that has been boiled, filtered or treated with iodine tablets.

Rabies: This vaccine offers protection for travelers to endemic areas who are at risk of getting bit by animals; like animal control people, biologists and spelunkers. It prolongs the time between the actual animal bite and the eventual side effects allowing you more time to reach a hospital. Three injections over three weeks.

Vaccines for Lowland areas: If your plans include the Amazon basin get the following:

Yellow Fever: (Required Vaccine) One of the few required vaccines in some countries. You may need it to go from one country to another - especially if that country has that illness present. **Yellow fever** is a viral illness spread by mosquitoes in parts of Africa and South America. The illness varies in severity from flu-like symptoms to a severe infection of the liver - which can be fatal if not treated properly and with medication. The vaccine is given by injection and lasts for approximately ten years. Minor reactions like pain at the injection site are the norm. If you are travelling where Yellow Fever is present the yellow-colored "International Certificate of Vaccination" should be carried with your passport, which should document all of your other vaccinations as well.

Malaria: This is an infection of the bloodstream by a parasite that is transmitted by the **Anopheles mosquito** after it bites you. The incubating period can last from a week to a few months then the following symptoms develop: a flu-like illness, with recurrent fevers, chills, weakness, headaches and general lethargy with a lot of fluid loss. **Hydration is very important.** Anyone coming back from the tropics with a fever should assume it is malaria until proven otherwise. It is a serious threat to travelers in the tropics. The best way to prevent malaria is to keep the mosquito from biting you. Avoid having skin that is exposed during the peak mosquito times - dawn and dusk. The Anopheles mosquito feeds at night. Use long-sleeved shirts and pants with socks and button up the collar if possible. Basically try to avoid having much flesh exposed and use insect repellent that is at least 35% DEET, or other natural repellents. Sleep in places where mosquito netting is available, as well as having your own personal netting. You can use Permethrin to spray sleeping areas and clothing to keep the mosquito away as well.

Drugs to prevent Malaria: ** Contact the CDC Malaria Hotline 404-332-4555 for updates. <http://www.cdc.gov>
No malarial drug is 100% effective. Travelers can still develop the disease regardless of how many medications they take. The parasite has developed resistance to antibiotics over time.

Chloroquine used to be the drug of choice, but now there are many strains of the parasite that have developed a resistance to this drug. The drug is generally safe but there are some side-effects like nausea, diarrhea and upset stomach. The oral drug is taken once a week for two weeks before entering the endemic area, once a week while in the area and for four weeks after leaving the area.

Mefloquine is now the most widely used drug for areas that have parasites resistant to Chloroquine. The adult dose is 250 mg. once a week and the dose for children varies with the weight of the child. The usage is the same as Chloroquine. The side effects are nausea, upset stomach and diarrhea with occasional serious reactions like hallucinations, anxiety, psychoses and seizures. Consult your Doctor!

Doxycycline is an alternative to mefloquine. It can cause a rash to users exposed to the sun.

Fansidar is a combination drug with pyrimethamine & sulfadoxide. **It is generally saved for treatment.**

Latent Malaria: Some malarial forms can stay in the liver for up to four years. **Primaquine** is used to prevent this from happening after travelers leave the infected area.

The following links are worth reading to get more information.

<http://www.cdc.gov>

<http://www.cdc.gov/malaria/travelers/drugs.html>

<http://www.webmd.com/a-to-z-guides/malaria-medications>

http://en.wikipedia.org/wiki/Malaria_prophylaxis

<http://www.drugs.com/condition/malaria.html>