# Travel Advice

Family Health Center

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Patients planning travel to other countries often ask physicians for advice about immunizations and prevention of diarrhea and malaria when traveling. Legal requirements and recommendations for different countries vary from time to time, often unpredictably, but some reasonable recommendations can be made.

## TRAVELERS' DIARRHEA

The most common cause of this disorder is a toxic variant of the intestinal bacteria *E. coli*. However, other bacteria, as well as viruses and parasites can cause this condition. In the developing world, especially in rural areas, the public water supply may be considered a dilute solution of sewage. Travelers are cautioned not to drink tap water or iced drinks, and should avoid eating leafy green vegetables that may have been washed in water. Generally travelers' diarrhea is an infection which will improve in several days without any treatment. However, it can be distressing and in some cases become severe with high fever and bloody stools.

Most experts generally do not recommend taking medication everyday to prevent travelers' diarrhea. Some in the past have recommended Pepto-Bismol 2 tablets 4 times a day, but it is not always effective.

When symptoms are moderate or persist more than 3-5 days, loperamide (Imodium) an over-the-counter 2 mg tablet taken 2 tablets initially, then one tablet after each loose stool to a maximum of 8 tablets per day, plus a single dose of an antibiotic usually relieves symptoms of travelers' diarrhea in less than 24 hours. If diarrhea is severe, then three days of treatment is recommended. Packets of oral rehydration salts can help maintain fluid balance, particularly in the young or elderly and are available from Cera Products at 888-237-2598.

#### **MALARIA**

The most current list of countries with a risk of malaria is available from the Malaria Branch of the Center for Disease Control at 770-488-7788. Chloroquine 300 mg once weekly is the drug of choice in areas with chloroquine-sensitive malaria - namely Central America west of the Panama Canal, Mexico, Haiti, the Dominican Republic and parts of the Middle East including Iraq, Syria, and Turkey. Mefloquine 250 mg once weekly is used in areas with chloroquine-resistant malaria - namely most of Africa, South America, Asia, and parts of Oceania. An alternate antimalarial (atovaquone/proguanil) can be used in patients

known to have difficulty tolerating mefloquine or for those who have a history of epilepsy, seizures, psychiatric problems, or heart arrhythmias. There are small areas resistant to all of the above where doxycycline 100 mg daily is preferred - namely western Cambodia and the Thai-Cambodian and Thai-Myanmar border areas. Travelers to countries with malaria should seek prompt medical attention for illness with high fever and for up to three years after return.

### **IMMUNIZATIONS**

Immunizations are the cornerstone of travel medicine; they are highly effective in preventing many serious diseases to which travelers may be exposed. Most people traveling to industrialized Western nations only need to be sure they are up-to-date on immunizations routinely used in the United States. The only vaccine required for entry in certain areas of the world is yellow fever. However, depending on the itinerary and risks anticipated, there are several travel specific immunizations that are highly recommended even though they may not be required for entry. Be sure to check with the Center for Disease Control for updated information. Immunizations should usually be given at least one month in advance of travel.

Pregnant patients should avoid all live vaccines: measles, MMR, oral polio, yellow fever, oral typhoid and cholera. Other vaccines, if necessary, are safest in the second trimester. Breast-feeding mothers can receive both live and inactivated vaccines.

#### Cholera

The risk of cholera to tourists is very low. The currently licensed vaccine has limited effect, often causes reactions and is not recommended for travelers.

#### Hepatitis A

Hepatitis A vaccine is recommended for travelers going anywhere outside the US, Canada, Western Europe, Japan, Australia or New Zealand. It is given as a 2 dose series at least 6 months apart. Antibodies reach protective levels 2-4 weeks after the first dose.

#### Hepatitis B

Vaccination against hepatitis B is not ordinarily recommended for foreign travel, except to high-risk travelers or those who may require medical or dental care in areas where hepatitis B is highly endemic. Such

areas include China, Korea, Southeast Asia, all of Africa, most of the Middle East, the Southern and Western Pacific Islands, the Amazon region, Haiti and the Dominican Republic. Travelers at high risk include health care workers, those planning a long stay in endemic areas (6 months), and anyone who might have sexual contact with a local resident or prostitute. Primary immunization is a 3 shot series over 6 months.

# <u>Influenza</u>

Vaccination against influenza is recommended for high risk individuals and those over age 65. It may also be considered for travelers going to the southern hemisphere from April to September, or travel to the tropics, or with large tourist groups at any time of year. It should be given at least 2 weeks before departure.

#### Japanese encephalitis

This disease is an infrequent but potentially fatal mosquito-borne viral disease that occurs in rural China, Korea, the Indian subcontinent, and Southeast Asia, especially near pig farms. Infection in travelers has been very low. Vaccination should be considered for travelers who anticipate a long stay (more than 30 days) in rural agricultural areas where they will be heavily exposed to mosquitoes, particularly in the rainy season (May-October). This 3-dose vaccine is available locally at the Spokane County Health District 509-324-1600.

#### Measles

People born after 1957 who have not received two doses of measles vaccine and do not have a documented history of infection should receive a measles or MMR booster before traveling.

#### Meningococcal meningitis

Meningococcal vaccine is recommended for tourists traveling to areas where epidemics are occurring. Epidemics occur frequently in sub-Saharan Africa from December to June. Saudi Arabia requires a certificate of immunization for Hajj pilgrims to Mecca or Medina. Vaccination should be given 2 weeks before departure. The duration of immunity is several years.

#### **Polio**

Adults and unimmunized young travelers to tropical or developing countries in the Caribbean or outside the Western Hemisphere who have not previously been immunized against polio should receive a primary series of polio vaccine. Travelers who have previously completed a primary series and have never had a booster should receive a booster 4 weeks before travel.

#### Rabies

Pre-exposure immunization against rabies is recommended for travelers with an occupational risk of exposure (animal handlers), for those planning extended stays in endemic areas, and for outdoor-adventure travelers going to rural destinations in endemic areas. Endemic areas include India, Thailand, rural Latin America, and parts of Africa.

#### Tetanus and Diphtheria

Everyone who has completed the primary series as a child should receive a tetanus-diphtheria toxoid (Td) booster at least every 10 years. Before traveling to high-risk areas for diphtheria (the former Soviet Union, Albania, Haiti, Dominican Republic, Ecuador, Brazil, Philippines, Indonesia, and many other countries in Africa and Asia), children should complete a 3-dose primary series.

#### **Tuberculosis**

Vaccination with BCG is not recommended for short-term travelers. It is occasionally recommended for persons who anticipate prolonged exposure to active tuberculosis, especially children and health care workers. The amount of protection provided by BCG is unclear. For most patients, a better alternative to vaccination is skin testing before departure and 2-4 months after returning.

# **Typhoid**

Typhoid vaccine is recommended for persons traveling for 3 or more weeks outside usual tourist routes in Latin America, North and West Africa, the Indian subcontinent, and Eastern Europe. An injectable vaccine available at Panhandle Health District as a single dose to anyone over 2 years can be given 2 weeks before departure and protects for 2 years.

#### Yellow Fever

A live virus vaccine, prepared in eggs, is recommended at least 10 days before travel to endemic areas, which include much of tropical South America and most of Africa around the equator. The vaccine is available locally at the Panhandle Health District. Boosters are needed every 10 years. Some countries in Africa require a certificate of yellow fever vaccination from all entering travelers; others in Africa, South America and Asia require evidence of vaccination from travelers coming from or traveling through endemic or infected areas. Yellow fever vaccine should be avoided in infants less than 9 months.

# In summary

- For more travel health information, contact the Center for Disease Control at 877-394-8747 or www.cdc.gov/travel. Also the World Health Organization at www.who.int/ith.
- Traveler advisories can be found through the US Department of State at 202-647-6575 or www.state.gov or travel.state.gov/travel\_warnings.html.