

## TRAVELING AND YOUR HEALTH

When vacation time comes around, the lure of exciting, brightly-lit cities and exotic, sun-drenched islands can be irresistible. Some far corners of the globe, however, may be home to some unfriendly microbes. Adventurous travelers should be careful not to bring home more than a suitcase full of souvenirs.

Adequate time should be given to prepare for a vacation, such as getting any needed vaccinations, putting together an appropriate first aid kit, and checking on health advisories, if any, for your upcoming vacation site.

## GENERAL TRAVEL ADVICE

Before traveling:

- ◆ Learn about encountering potential problems and how to decrease health risks.
- ◆ Get appropriate immunizations and preventive medications.
- ◆ Learn appropriate medical response to obvious exposure or illness.
- ◆ Learn about post trip evaluation and response to contracted illness.

## BASIC RECOMMENDATIONS

- ◆ Know your risk; some countries have a higher risk than others.
- ◆ Determine if antimalarial medication is required.
- ◆ Begin recommended immunizations several months before departure.
- ◆ Obtain address and telephone number of the American Embassy in each country you visit.
- ◆ Develop a plan for managing illness or disability, if it occurs.
- ◆ Ascertain if health insurance covers illness abroad. You may need supplementary coverage.
- ◆ Carry adequate supplies of required medications (including syringes, if needed). Do not assume replacements will be available.
- ◆ Plan for adjusting a medication schedule in new time zones.
- ◆ Take an extra pair of glasses or contact lenses and lens solution, and a copy of your optical prescription.
- ◆ Carry identification.
- ◆ Take a basic first aid kit.
- ◆ First Aid Travel Kit checklist:

- |   |  |   |  |
|---|--|---|--|
| <input type="checkbox"/> tweezers   | <input type="checkbox"/> needle                | <input type="checkbox"/> pocket knife       | <input type="checkbox"/> scissors                |
| <input type="checkbox"/> flashlight   | <input type="checkbox"/> band-aids             | <input type="checkbox"/> sterile gauze pads | <input type="checkbox"/> adhesive tape           |
| <input type="checkbox"/> povidone-iodine  | <input type="checkbox"/> antibiotic ointment   | <input type="checkbox"/> antifungal cream   | <input type="checkbox"/> pain/fever medication   |
| <input type="checkbox"/> cortisone cream  | <input type="checkbox"/> antihistamine tablets | <input type="checkbox"/> sun blocks         | <input type="checkbox"/> water purification tabs |
| <input type="checkbox"/> insect repellents  | <input type="checkbox"/> insecticides          |   |  |
| <input type="checkbox"/> medications for diarrhea, dehydration, altitude and motion sickness. |  |   |  |

Medications can be purchased over the counter, or contact your physician for prescription medications.

## PRECAUTIONS

Motor vehicle accidents, in some areas, are the leading cause of medical emergencies among tourists. If riding a motorcycle, wear a helmet; don't drink and drive; avoid traveling in crowded buses, trucks, and taxis; request rental cars with seat belts; and bring infant car seats for back seat use.

Do not swim, bathe, or wade in fresh water streams, lakes, or rivers where schistosomiasis (from snails) can be transmitted, most often in Asia, Africa, and tropical America. Read travel advisories about each country you plan to visit.

If in the hot sun between 10 am. and 2 pm., always use sunscreens and lip balms. Wear protective clothing, hats, and sunglasses; drink lots of fluids and avoid excessive alcohol consumption. Take adequate clothing if cold temperature is anticipated. (See Skin chapter.)

## OUT OF COUNTRY TRAVEL

Some health risks such as malaria, cholera, and traveler's diarrhea are preventable when adequate precautions are made prior to the journey. Take the responsibility to seek advice before traveling to a destination, especially regarding high risk diseases and other special health risks. Planning ahead can give travelers enough time to get vaccinations against diseases, such as Hepatitis A (6 months), or to learn of medications that reduce common problems, such as jet lag and traveler's diarrhea.

## PRECAUTIONS

**Insect Borne Diseases** Use insect repellents and use antimalarial medication beginning one week before departure and continuing four weeks following return to the United States. Consult with your physician about prescription medications and preventions.

**Food and Waterborne Disease (Traveler's Diarrhea)** The most common cause of travelers' diarrhea, usually a self-limited illness lasting several days, is infection with E-coli. Travelers' diarrhea often results when tourists eat from "beautiful buffets set up in the sun in tropical islands." Travelers should be advised to avoid foods that have not been thoroughly cooked, ice cubes, cold salads, foods from buffets and street vendors, raw vegetables, fruit not peeled by themselves, diluted fruit juices, and milk. (Best bets often are hot, cooked foods, fruits that can be peeled, and carbonated beverages). Often, people refuse to drink local tap water but then make the mistake of brushing their teeth with tap water or opening their mouth while showering. Drink water that has been brought to a boil. Bottled water, beer, and wine are acceptable. Use fresh straws and disposable cups with each drink. Avoid uncooked vegetables, creamy deserts, and food sold by street vendors.

## IMMUNIZATION

**CHOLERA** The risk of cholera to tourists is very low; the vaccine currently licensed in the United States has limited effectiveness, often causes reactions, and is not recommended for travelers. Two new vaccines, available in some European countries, are more effective than the old vaccine, but neither protects against the newer strain of Cholera.

**HEPATITIS A** Hepatitis A vaccine is recommended for susceptible travelers going to areas where hygiene is poor, particularly those going outside the usual tourist routes. The vaccine available in the United States is given as two doses six months apart. The vaccine is expensive but worth the value if you are traveling in high risk areas.

**HEPATITIS B** Vaccination against hepatitis B is not ordinarily recommended for foreign travel, except for medical personnel whose work could require handling of body fluids, or for people who expect to have sexual contacts, receive medical or dental care, or stay for more than six months in areas such as Southeast Asia or sub-Saharan Africa, where hepatitis B is known to be present.

**JAPANESE ENCEPHALITIS** Vaccination against Japanese encephalitis, a frequently fatal mosquito-borne disease that occurs in rural Asia, should be considered for travelers who anticipate spending time in rural rice-growing areas where they will be heavily exposed to mosquitoes. Countries where the disease may be a problem include Bangladesh, Cambodia, China, India, Indonesia, Korea, Laos, Malaysia, Myanmar (Burma), Nepal, Pakistan, the Philippines, Singapore, Sri Lanka, Taiwan, Thailand, Vietnam, and eastern Russia. The disease now occurs only rarely on the main island of Japan or Hong Kong.

**MEASLES** People born after 1956 who have not received two doses of measles vaccine (after their first birthday), and do not have a physician-documented history of infection or laboratory evidence of immunity, should receive a single dose of measles (or measles-mumps-rubella) vaccine before traveling anywhere, but at least two weeks before or three months after immune globulin.

**MENINGOCOCCAL DISEASE** Meningococcal vaccine is recommended for tourists traveling to epidemic prone areas. Epidemics occur frequently in sub-Saharan Africa from December to June, and in northern India and Nepal year round. Saudi Arabia requires a certificate of immunization for traveling to Mecca.

**POLIO** Adult travelers to tropical or developing countries outside the Western Hemisphere who have not previously been immunized against polio should receive a primary series of enhanced inacti-

vated polio vaccine (eIPV). If protection is needed within four weeks, a single dose of eIPV or trivalent (live) oral polio vaccine (OPV) is recommended. Travelers who have previously completed a primary series and have never had a booster should receive a booster dose of OPV or eIPV.

#### RABIES

Pre-exposure immunization against rabies is recommended for travelers with an occupational risk of exposure or those traveling for extended periods in high risk areas. People at high risk of being exposed should receive three injections of rabies vaccine over three or four weeks. Side effects are possible and should only be used for “high risk” use. Consult your physician.

#### TETANUS AND DIPHTHERIA

Whether traveling or not, everyone who has had a primary series as a child should receive a tetanus-diphtheria toxoid (TD) booster injection once as a teenager or young adult and once again at age 50. For travelers, a TD booster is recommended for those who have not had one for 10 years, especially those going to developing countries and to Russia and the Ukraine, where a large outbreak of diphtheria has been occurring in recent years.

#### TYPHOID

A parental vaccine (Typhim UI) is now being used with no visible side effects. There are also oral vaccines that are reported to be as effective. Both are available in the United States.

#### YELLOW FEVER

Yellow fever vaccine is recommended 10 days before travel to rural areas in high risk zones. This includes most of tropical South America and most of Africa. The vaccine is available in the United States only in centers designated by state health departments. Boosters are given every 10 years. Some countries in Africa require a certificate of yellow fever vaccination from all entering travelers; other countries in Africa, South America and Asia require evidence of vaccination from travelers coming from or traveling through high risk areas.

#### MALARIA

Countries with a risk of malaria are many; additional and current information is available from the CDC at (404) 332-4555 or from your local, county or state Board of Health.

In all malaria areas, use of room sprays, mosquito nets, window screens, clothing with long sleeves and long pants, and insect repellents containing up to 35 percent diethyl toluamide (DEET) is recommended, especially during evening and night hours. DEET can, however, cause severe reactions in children with prolonged or excessive use. Spraying clothing with permethrin (Duranon) and using permethrin-impregnated mosquito nets are also helpful.

Since none of these measures are totally effective, travelers to malaria areas should seek prompt medical attention for illnesses accompanied with a fever while traveling.

**Other Recommendations** - More than one vaccine can be given at the same time. People with low immunity and pregnant women generally should not receive live virus vaccines; however, the measles vaccine is recommended for HIV-infected patients. Yellow fever vaccine may also be advisable for HIV-infected and pregnant patients who cannot avoid exposure.

If you plan a visit to Canada, Australia, Japan, New Zealand or Western Europe, the health risks are about the same as in the United States. Urban areas have a higher level of sanitation than more remote areas. Foods sold on the street may not be as safe as restaurant food because of a lack of running water.

## GEOGRAPHIC REGIONS AND THEIR COMMON MICROBES

**Mexico and Central America** Malaria and dengue fever are problems, as is typhoid fever. Cholera is a risk in Guatemala and Mexico. Hepatitis A is high risk to travelers in rural areas. Inoculation with hepatitis A vaccine or immune globulin is recommended. Rabies is a risk especially in the rural areas.

**Tropical South America** Malaria exists all year in many parts of this region as does dengue fever. Yellow fever is a significant risk to all travelers throughout the year. A recent cholera epidemic swept the area with most cases in Peru, Ecuador, and Colombia.

**Middle East** Food and waterborne diseases are very common. Travelers' diarrhea, cholera, parasitic infections, typhoid fever, and hepatitis A are caused by either viruses, bacteria, or parasites found throughout the region. Hepatitis A vaccine or immune globulin and standard precautions regarding food and water are advised. Rabies has also been a problem, although Bahrain and Cyprus have no reported cases in two years.

**India** The most frequently reported illness is travelers' diarrhea transmitted through contaminated food and water. Other diseases carried in tainted food and water are typhoid fever, cholera, hepatitis A, and parasitic infection. Travelers to India and Nepal also are at risk for bacterial meningitis and rabies, especially in rural areas.

**West Africa** Malaria is a high risk in 16 countries including Ivory Coast, Gambia, Ghana, Senegal, Nigeria, Sierra Leone, and Togo. Yellow fever outbreaks have occurred in 10 countries and the risk to travelers is significant. The Center for Disease Control recommends, and many countries require, a yellow fever vaccination certificate for entry.

**Former Soviet Union** A diphtheria epidemic that began in 1990 in Russia has spread to Ukraine and the remaining independent states. During 1994, nearly 50,000 cases were reported with 1,746 deaths. The CDC advises travelers to make sure they are up-to-date on their diphtheria immunizations.

**Southeast Asia** No risk of malaria in Brunel Darussalam and Singapore, but the mosquito-borne infection exists sporadically in parts of Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Philippines, Thailand, and Vietnam. Epidemics of dengue fever have occurred in Cambodia, Indonesia, Laos, East Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

## JET LAG

Now that jets have replaced trains and cruise ships as the most common mode of long distance travel, skipping time zones has become commonplace. The event that produces jet lag is clear: it is the sudden readjustment demanded of your body as you cross time zones. Jet lag is very much the same as staying up all night to cram for a final examination with resulting confusion, disorientation, and difficulty remembering events. You may feel hungry at inappropriate times, have difficulty regulating your body temperature, be short-tempered and in general, feel off balance. Any or all of these feelings may accompany someone suffering from jet lag. Often, the effects last for over 24 hours, but as a rule, it takes the body a full twenty-four hours to recover for every time zone that is crossed. Flying eastward (and therefore resetting your clock forward) is often more difficult than flying westward and adding hours to your day (flying north and south should not cause jet lag). The following are some simple measures that can be taken to reduce or prevent a jet lag:

- ◆ Try to schedule your arrival of destination at roughly your bedtime, according to the time zones into which you are flying.
- ◆ Try sleeping on the plane at the appropriate bedtime, if it is possible, in order to arrive at the hour you usually start your day. Getting some added sleep prior to departure may also help.
- ◆ Begin to reset your body's clock several days in advance of departure by adapting a day-night similar to your destination.
- ◆ If you have an important meeting, it is advised that you arrive a day or two earlier to adapt.
- ◆ Drink plenty of fluids while in the air to replace the fluids that are lost due to high altitude and change in the air pressure (pressurization).
- ◆ Avoid alcoholic beverages, as they can further disturb your already disrupted sleep cycles.
- ◆ Avoid coffee and caffeinated beverages such as colas, which can also interfere with sleep and contribute to dehydration.
- ◆ Try to get enough exercise at your new destination. Often, when we are traveling, we don't walk or exercise as much as we do at home. The lack of activity can also contribute to sleepless nights.
- ◆ Take your meals at the local time when you arrive at your destination. Digestion also helps the brain to accelerate its adaptation.
- ◆ Select fruit rather than fatty foods, if the airplane menu permits — digestion is easier.
- ◆ Avoid sedatives, sleeping pills, and tranquilizers. These drugs may be amnesic and worsen confusion and memory lapses.

## RESOURCES AVAILABLE FOR TRAVEL ADVISORIES

**Your private physician** Present your itinerary well in advance of the trip.

**The County Health Department** Update all vaccinations and add those applicable to the destination.

**Center for Disease Control International travel health advisories**

Call (404) 332-4565 to access and request document #000005 (this can be faxed to you).

Access the Internet at <http://www.cdc.gov/travel/>

**Health Information for International Travel** (Published annually by the CDC) Available from the Superintendent of Documents, US Government Printing Office, Washington, D.C. 20402 (202-512-1800). Up-to-date automated information is available from the CDC by telephone at (404) 332-4559 or fax (404) 332-4565.

### Useful Websites

- ◆ **Travel Health Online** - <http://www.tripprep.com/>

A comprehensive health travel resource including detailed information on 220 countries, including immunization recommendations, malaria prevention, and warnings about crime.

- ◆ **MedicinePlanet.Com** - <http://www.medicineplanet.com/>

Medicine Planet offers up-to-date information on health topics for travelers along with several helpful articles geared to make a positive travel experience.

- ◆ **Travelers' Health** - <http://www.cdc.gov/travel/>

Operated by the Center for Disease Control and Prevention, this site contains news on recent disease outbreaks around the world and how to find a travel clinic for vaccinations.

- ◆ **Passport Health** - <http://www.passporthealthusa.com/>

Passport Health operates clinics throughout the USA which offer immunizations and health products to travelers.



