

HEALTHY TRAVELERS TIPS

In preparing for a long-awaited overseas study program or vacation, student travelers always take care in packing airline tickets, currency, and clothing. The wise traveler will also include taking precautions against unexpected health ailments that can turn a travel experience into a nightmare! Pre-trip planning should always include a consultation with your health care provider to guard against travel-related ailments or conditions and how you can help to prevent them. The following information should help you prepare for your upcoming adventure.

Accidents

Accidents are the most common cause of death due to travel – including motor vehicle accidents and drowning, with morbidity and mortality worse overseas than in the U.S. Prevention includes wearing seatbelts, whenever available, being particularly aware and alert when driving in a left hand driving country, and driving yourself whenever possible (get International Drivers License). AVOID the use of alcohol and don't let a sense of invulnerability or adventure prevail over making wise transportation choices.

Crime

Become informed about the countries you are traveling to ahead of time. Learn about the political situation in each country; check on the stability of the government, and areas within each country of potential danger. Contact the State Department regarding recent travel advisories. When traveling, BE AWARE OF YOUR SURROUNDINGS at all times. Tourists/students are easy prey for theft and assaults.

Insurance and Medical Assistance

Make sure to check on your **insurance coverage** before traveling overseas. Many policies may not provide coverage when outside the U.S. If you do have coverage outside the U.S., insurance typically pays for medical bills and hospital expenses, after the fact. Make sure to take your insurance card and information with you when traveling and keep it in a safe place as you would your passport.

Medical Assistance helps obtain care and services, including finding a doctor, paying up front expenses, coordination of care with a traveler's own doctor, and arranging the trip home if needed for an acute illness. Many companies provide this coverage (International SOS 1-800-523-8930 and others). It is often sold by travel agents coupled with other coverage and costs approximately \$1 to 2 dollars per day. If you have poor, or no coverage with your health plan, getting medical assistance coverage is highly recommended.

Prescriptions

Carry all prescriptions by hand in the original pharmacy bottles; NOT loose in a zip-lock baggie unless you want to risk potential jail time! Do not check medication through with luggage, in case of baggage loss. Prepare or ask your provider to help to prepare a list of commercial and generic names/doses/indications of your medications, in case a replacement while overseas is needed. Any needles or syringes should have a letter on your health care provider's letterhead, explaining the drugs and indications for carrying these supplies. Also take an extra pair of glasses, contact lenses, and a copy of the prescription for your eye correction.

Suggested Immunizations:

There is little risk of disease from usual travel to tourist areas in many countries such as Canada, Australia, New Zealand and the European continent. However, there is greater risk of becoming ill in developing areas of the world, such as Mexico, Central America, Africa, Asia, South America, South Pacific, the Middle East, and the Far East. Travel to areas of poor hygiene and sanitation and travel for extended periods of time will expose the traveler to food and water less sanitized than that of industrialized countries, increasing the risk of developing **hepatitis, typhoid, polio, or cholera**. There are vaccines available for the prevention of hepatitis A and B, typhoid, and polio. It is also important to update vaccinations before traveling, such as **tetanus** or **chickenpox**. **Rabies** is an important health threat in many parts of the world contracted through an animal bite. Rabies vaccination is now easily accomplished with a series of 3 injections, with side effects not much different from those of other vaccines. Travelers at high risk for rabies should receive the series before leaving. It is an extremely important vaccine, since there is no cure for rabies, and if the disease is contracted, it will result in death.

Your provider can review your vaccination record and suggest which vaccinations are recommended for your specific areas of travel. Boettcher has a computer program (Travax) listing all recommended and required immunizations throughout the world, which is updated monthly from the Center for Disease Control. All immunizations should be recorded on an official WHO International Certificate of Vaccinations (yellow card) with entries signed by your health care provider or nurse providing immunizations.

Required Immunizations:

Some countries require immunizations for **yellow fever, meningococcal disease, or typhoid fever**. Again, it is important to check for current information on immunization requirements, which can be done through our Travax program.

Yellow Fever: Yellow fever is a viral disease carried by mosquitoes in endemic zones of Central Africa, the Caribbean, and the Americas. It can cause jaundice (yellowing of the skin), vomiting, bleeding, severe fever, and death from acute kidney or liver failure. Even if there is no active yellow fever at the time you travel in an endemic zone, you may not be allowed into certain other countries unless you have received the yellow fever vaccine. The yellow fever certificate is valid for 10 years beginning 10 days after primary vaccination. This vaccination must be administered by an approved WHO Yellow Fever Vaccination Center. In Colorado Springs, it is given at the El Paso County Health Department at 575-8573 or Dr. Sean O'Donnell at 473-6171, or Passport Health at 387-5528, ext 108.

Immunization Side Effects:

Injectable bacterial vaccines (typhoid, tetanus, pertussis, diphtheria), inactive viral vaccines (hepatitis A, polio, rabies, Japanese encephalitis), or synthetic vaccines (recombinant Hepatitis B) may produce local reactions with some soreness or swelling of the area injected. Less commonly these vaccines may produce fever, headache, or achiness lasting 2 to 5 days.

Live bacterial vaccines, such as the oral typhoid vaccine does not commonly have side effects. Antibiotics cannot be taken at the same time as the vaccine since they will inactivate the bacteria.

Live viral vaccines, such as yellow fever, measles, mumps, rubella, and polio typically produce a mild infection that then provides immunity. Reactions are usually mild, developing 3 to 10 days after the vaccine.

An individual who has had a **severe reaction** to a vaccine needs to discuss their symptoms with their health care provider and decide whether or not they should receive that vaccine again.

Jet Lag:

This is particularly a problem for east-west travelers who cross more than three time zones. Recovery may take ½ to one full day for each time zone crossed in excess of three. The usual symptoms are fatigue, lack of concentration, irritability, and sleep difficulties. The best advice is to eat and drink modestly while in transit, and try to match your schedule with the new time zone as quickly as possible. For example, if you have arrived midnight your time, but eight am at your destination, try to stay up during the day, and only go to sleep when it is well past dark. Avoid caffeine and alcohol and drink plenty of juice and water to decrease the effects of dryness and dehydration while in jetliners. Exposure to sunlight will help reset the body's biological clock. Melatonin may help - for eastward travel, take 1 to 5 mg at the destination bedtime on your arrival day, continuing at bedtime for three nights after your arrival. For westward travel, take 1 to 5 mg at bedtime after your arrival.

Sexually Transmitted Infections:

The young person who travels alone may be more likely to engage in random sexual activity. Use of condoms is especially important for both disease prevention and contraception, but is not a 100% guarantee of protection. Penicillin-resistant strains of gonorrhea are prevalent in areas of Southeast Asia and West Africa, while **HIV is prevalent worldwide**.

Avoiding Traveler's Diarrhea:

This advice applies to all situations, from street vendors to expensive hotel restaurants:

- **Make sure your food has been thoroughly cooked and is still hot when served.** Cooked food held at room temperature for several hours is at much greater risk for causing a food borne illness.
- **Boil it, Peel it, Cook it, or Forget It!** Avoid any uncooked food, apart from fruits and vegetables that can be peeled or shelled.
- Ice cream from unreliable sources is frequently contaminated and can cause illness. If in doubt, avoid it.
- Certain species of fish and shellfish may contain biotoxins, even when they are well cooked, causing significant illness. Local people may be able to help advise you on what is safe.

- If it is questionable whether the drinking water is safe, boil it or disinfect it with reliable, slow release iodine disinfectant tablets, usually available at pharmacies or outdoor shops, such as Mountain Chalet and REI. Water filters are quite helpful but cannot filter out viruses, so additional use of iodine will offer excellent protection.
- Avoid ice unless you are sure it is made from clean and safe water.
- Avoid bottled water, which is often repackaged local water. Beverages such as hot tea/coffee, wine, beer, and carbonated soft drinks or fruit juices, which are bottled or otherwise packaged, are usually safe.

Most diarrheas are due to a change in bowel organisms, which can occur with local or distant travel. These infections are usually brief and self-limited. With the rapid onset of diarrhea accompanied with cramping and urgency, but no fever, take both an antibiotic and Imodium. If you have a fever, take only the antibiotic, as directed below:

Antibiotic (Cipro, Levaquin): 2 tablets at the onset of diarrhea, then 1 tablet, 2 times/day, until symptoms are gone (may be as little as a single dose to be curative). Do not exceed three days of treatment.

Imodium: 4 mg. (2 capsules or 4 tsp.) initially, followed by 2 mg (1 capsule or 2 tsp) after each loose stool, with no more than 16 mg (8 capsules or 16 tsp.) per day. If the diarrhea persists despite the medications or is bloody and/or accompanied by a fever, a physician should evaluate you.

Malaria:

Malaria is a major problem for people traveling, studying, or living in many parts of Asia, Africa, and South America. Malaria is transmitted by mosquito bites, as is yellow fever, dengue fever, and Japanese encephalitis. Malaria is the major killer among these diseases, and is an extremely dangerous and sometimes fatal disease. **The best way to prevent malaria and other insect-borne diseases is to avoid being bitten - no bites, no disease.** If you are visiting a malarial area and may be bitten by mosquitoes, it is safer to take antimalarial medications than not to take them. The choice of medication can be controversial, with different drugs available in different countries, and with many exaggerated tales about side effects. All medications have side effects with no one medication 100% effective. However, malaria can prove fatal, thus, it is safer to take antimalarial medication than contract malaria. Antimalarial medicines can save lives.

Prevention measures include:

- Sleep inside screened areas or keep windows and doors shut if screens are not available. Air conditioning, if available, is also a good deterrent.
- Chemically treated bed nets are the easiest, least expensive and single most effective method of preventing insect bites. They offer excellent protection when sleeping indoors or outdoors, reducing the risk of contracting malaria by 70%. They must be retreated two times/year with permethrin or deltamethrin. Make sure they are not torn and are tucked under the edges of the bed under the mattress.
- Wear protective clothing. Mosquitoes seek heat from the skin and dark colors. Therefore, wear light colored long-sleeved shirts and long trousers that cover the arms and legs, and socks to cover the ankles.
- Apply insect repellents on exposed, uncovered parts of the body before going outside, especially at dusk or nighttime. Insect repellents last from 4 to 6 hours depending on their concentration. After showering, swimming, or heavy perspiration, it may be necessary to reapply repellent at regular intervals. Repellents are effective against mosquitoes, flies, fleas, ticks, horse flies, tsetse flies and ants. They are sold as roll-ons, sprays, liquids, and creams. Avoid getting them in the eyes and do not apply to irritated skin or open wounds. **DEET** is the most effective repellent, with concentrations varying from 10 to 50%. To be effective, the product should contain at least 35% DEET. This repellent is available in polymer formulations, which keep the DEET on the skin surface and prevent systemic absorption. Side effects from DEET are rare but may include a skin rash or allergic reaction. DEET is not recommended for pregnant women and children under age 8, except in concentrations of 10 to 20%. Other less effective repellents include DMP, EHD, and 35/35, which provides 2 to 4 hours of protection. They are not as effective as DEET but have the advantage that they can be used on young children. Citronella is an extremely weak insect repellent (mainly works against small flies or gnats), protects less than 2 hours, but is better than nothing and can also be used by pregnant women and children. **Permethrin** is a synthetic derivative of chrysanthemum. It is applied to clothing and netting: one soaking application may last up to 4 to 8 weeks or longer, even with laundering, and it is an excellent insect repellent.

Types of Malaria and Antimalarials:

The malaria parasite is carried in the saliva of the female mosquito, with humans being the parasite's hosts. There are four species of the malaria parasite Plasmodium, with the two most common forms being **falciparum** and **vivax**. **Vivax** generally produces a milder illness that may not be apparent for months or even years after it is contracted. Taking chloroquine while traveling, and after leaving the malarious area prevents vivax.

Falciparum produces much more severe symptoms and is often **fatal** if untreated or diagnosed late. In the past, Chloroquine was effective at preventing falciparum malaria, however there are now an increasing number of resistant strains. Other medications such as mefloquine, doxycycline, and malarone can be used, but no prophylactic medication regimen is foolproof. It is possible to develop malaria even if all medications are taken.

Symptoms of malaria may include fever, chills, diarrhea, headaches, and joint and muscle pains. Since no antimalarial is 100% effective you should seek medical attention for any case of fever or flu-like symptoms during or in the weeks or months following travel in an endemic area, making sure to inform the provider of your travel history.

Malaria region + flu-like symptoms sometimes = malaria, until proven otherwise.

If not treated early, these symptoms may progress to coma, severe anemia, kidney failure, bleeding, fluid in the lungs, and shock. Thus, SEE A DOCTOR IMMEDIATELY IF MALARIA IS SUSPECTED.

The following are antimalarial medications taken for prevention of malaria:

Chloroquine (Aralen) – effective only in countries where resistance is not a problem, such as the Caribbean, areas of Mexico, etc. The dose is one 300 mg (base) tablet taken the same day weekly. Chloroquine should be started one week before departure, continued for the duration of the trip, and for four weeks after leaving the malarious region. Side effects are rare but may include upset stomach, headache, dizziness, or blurred vision. These side effects disappear rapidly when the medication is discontinued. The cost of medication for an overseas trip of one month, including dosing before and after travel, is approximately \$52.00.

Mefloquine (Lariam) – highly effective preventative medication against malaria, easy to take in dosage of one 250 mg. tablet per week. Mefloquine should be started 1 to 2 weeks before departure, continued for the duration of the trip, and for four weeks after leaving the malarious region. Individuals with psychiatric problems, epilepsy, cardiac conduction abnormalities, or liver or kidney failure, should not take this drug. Mefloquine should NOT be taken with antidepressant or beta-blocking medication. The drug has a reputation for causing numerous side effects, including dizziness, headaches, insomnia, vivid dreams, depression, memory loss, hallucinations, and fatigue. These side effects disappear when the medication is stopped. The cost of medication for an overseas trip of one month, including dosing before and after travel, is approximately \$105.00.

Doxycycline – just as effective as mefloquine but needs to be taken daily, rather than weekly. It is often recommended in areas with mefloquine-resistant strains of malaria (Thailand, Cambodia, Burma/Myanmar). The recommended adult dosage of doxycycline is 100 mg/day taken orally, starting two days before departure, continued for the duration of the trip, and for four weeks after leaving the malarious region. Side effects from doxycycline include nausea, heartburn, or vomiting, which can usually be reduced by taking with food. Photosensitivity, or an exaggerated sunburn reaction can also result, but can be reduced by using sun block and a hat. Doxycycline should NOT be taken by pregnant or breast-feeding women and in children less than age 8. The cost of medication for an overseas trip of one month, including dosing before and after travel, is approximately \$27.00.

Malarone – a very effective combination medication (proguanil and atovaquone) used in areas with chloroquine resistant strains of malaria. It is dosed one tablet/day, starting two days before travel and continued for one week after leaving the malarious region. Side effects can include abdominal pain, nausea, vomiting, and headaches. The cost of medication for an overseas trip of one month, including dosing before and after travel, is approximately \$192.00.

Write down any questions you may have to discuss with your health care provider. Remember, we have up-to-date travel and health information, and provide many immunizations at Boettcher Health Center. We are happy to help you plan your travel adventure for safety, and optimum health.

Questions? _____

Rev.10/06
Rev. 2/07