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As Travel Increases, Vaccination Becomes More Important

By James E. Froeschie, M.D. Director of Scientific and Medical Affairs, Aventis Pasteur

Travel to foreign countries by United States residents is increasing dramatically, yet only a small percentage of these travelers protect themselves by getting immunized against travel-related diseases. The low rate may be the result of a lack of awareness regarding travel-related diseases and the availability of travel vaccines. To remedy this, physicians are left with the responsibility to educate their patients on these issues and encourage them to get immunized before traveling abroad.

This year, some 34 million people will travel from the U.S. to endemic areas in developing countries throughout Latin America, Asia, and Africa. With these excursions comes a risk of contracting serious, life-threatening diseases including hepatitis A, meningitis, typhoid fever, yellow fever, and rabies. Nevertheless, it is estimated that only 4% of these travelers will get immunized before leaving the U.S.

In January 2000, yellow fever became endemic in Brazil with 61 cases reported to the World Health Organization (WHO). Between October 1999 and January 2000, a meningococcal meningitis outbreak was reported in Central African Republic and was responsible for 86 reported cases and 14 deaths. International travelers need to be informed about these risks, and they need to know about vaccines that are available for their protection.

Harmful bacteria that cause travel-related diseases can infiltrate the body in several ways: (1) eating contaminated food; (2) drinking nonpotable water, (3) person-to-person contact; and (4) bites from mosquitoes, dogs or cats. A visitor does not have to be backpacking through the tropics to come into contact with these antigens-one mouthful of contaminated salad, even in a well-developed area, is all it takes. Fortunately, travelers have a resource thanks to the availability of travel vaccines.

Preventing an individual from contracting an illness is preferable to treating a patient for a serious chronic disease. To that end, the Centers for Disease Control and Prevention (CDC) strongly recommends vaccination for all individuals who are traveling to endemic countries so they do not contract the disease or carry the bacteria into the U.S. upon their return.

There are many travel-related diseases; five that have been prevalent in recent years are detailed below.

Hepatitis A. Hepatitis A, a virus harboring in the stomach or intestines causing fever, malaise, nausea, abdominal pain, jaundice, and potential liver damage, is reported in travelers visiting developing countries who have "typical" travel agendas, accommodations, and food consump-

tion behaviors. The risk of contracting hepatitis A does not exclude travelers dining at a five-star restaurant or staying at a first-class hotel, and the risk of infection increases with the length of stay. What's more, most hepatitis A infections do not present with symptoms and, therefore, so undetected until serious liver problems

Meningitis. Meningococcal bacteria can cause meningitis posing a serious threat to individuals traveling to countries from Mali eastward to Ethiopia, an area known as the meningitis belt. In fact, 5% to 10% of populations in those areas may be asymptomatic carriers. "For this reason, administration of meningococcal vaccine is strongly recommended by the CDC and may even be required by local health departments. Meningitis is a life-threatening disease with a sudden onset characterized by fever, intense headache, nausea, and a stiff neck."

Typhoid Fever. The CDC reported that 70% of cases of typhoid fever in the U.S. are acquired through international travel. Bacteria that cause typhoid are usually contracted through ingesting contaminated food or water and are responsible for an estimated 16 million cases and 600,000 deaths worldwide. Yet, if travelers would get vaccinated, the chances of contracting this acute febrile disease would be greatly reduced.

Yellow Fever. The WHO estimates a startling 200,000 cases of yellow fever every year in Africa alone, with most cases left unreported. Yellow Fever presents with flu-like symptoms and may develop into severe hepatitis or hemorrhagic fever. It is a mosquito-borne viral disease responsible for mortality rates as high as 50% in endemic areas. Community fatality rates have reached 75%.

Rabies Infection. While typhoid and yellow fever are commonly recognized as travel related diseases, rabies infection surprisingly, also falls into that category. Rabies is an acute viral infection, mainly caused by canine bites. It remains an endemic disease in many sections of Latin America and Asia. Travelers planning to explore these areas should consider getting a rabies vaccination before leaving the U.S. A traveler who has been bitten during a visit in a foreign country might not have immediate access to the medical treatment necessary to fight the infection. If contracted and left untreated, rabies can lead to paralysis and eventually death.

When it comes to travel vaccines, it's essential to plan ahead, since some vaccines do not provide immunity until two weeks after administration and others must be given in a series. Travelers should plan ahead. Coadministration of some vaccines has been proven to be safe, well tolerated, and immunogenic.

What You Don't Know Will Hurt You PART II

By: Jim Walker

I returned to Kenya on mefloquine. I went straight to the mines and planned on staying there for six weeks. After three weeks I started to feel extremely fatigued and dizzy. It was the dry season so I thought I was just dehydrated. But the symptoms continued and became more acute, until one afternoon I passed out. I stopped taking the medication and stayed in bed for two days. I drank lots of water but couldn't eat anything. I realized I needed to see a doctor when I started feeling pain in the right side of my abdomen. There was only one problem, two days before, one of the men had taken our only vehicle into town and had not yet returned. I couldn't afford to wait so I walked the seven miles to a neighboring mine. They drove me into town and I caught a ride to Nairobi. I went to the hospital in Nairobi and they did an ultra sound on my liver and spleen. Both were extremely swollen. My liver function tests didn't show any evidence of a disease. The doctor instructed me to rest and stop all medications. Also, to drink plenty of fresh water and eat only fresh foods. After two weeks I was feeling better, but not quite 100%.

I returned to the mines and was a little concerned about the mosquitoes and not taking the mefloquine. It was the dry season and I felt pretty safe as long as I got under my mosquito netting before 8:00 p.m., which is when the Anopheles mosquitoes come out to feed. We still had some of the Fansidar left so I could use that if I started feeling any symptoms of malaria. I was very careful to stick to this new regiment and after two weeks I was feeling fine.

One evening while we were returning to camp, after restocking our supplies in town, the ball joint on our vehicle broke. We were stranded about twenty miles short of camp and it was getting dark. I had to be back in camp by sun-up to supervise the operation because we were going to be into the gem-bearing reef in the morning. My only option was to walk the twenty miles back to camp. Two of the men elected to stay with the vehicle for the night and get the ball joint fixed in the morning. It took us about an hour to remove the ball joint and by the time we $\,\blacktriangleright\,2\,$



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What You Don't Know Will Hurt You

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finished it was dark. I wasn't too concerned because I had a flashlight for the walk back.

The African bush is beautiful at night, when the moon and stars are out you don't need a light to guide you. Unfortunately, this night was overcast. I could barely see my feet as I walked. I started walking and planned to reach camp a little after midnight. Three miles into my hike the flashlight went dead. All I had with me was my camera bag, my leatherman tool and two big throwing knives. I found two AA batteries in the camera bag, but they weren't totally fresh. I rigged the batteries to the flashlight with my leatherman as a connection between the positive and negative ends of the batteries. By doing this I was able to get enough light to see twenty feet of the bush track in front of me. I couldn't leave the light on or I would run out of juice fast. About every fifty steps I turned the light on to see if the track was clear of snakes and any other unpleasant critters.

I set a pretty good pace and figured I would be in my bed by 12:30. About five miles from camp I saw 10 to 15 lights flickering through the bush about a mile ahead of me. They had to be poachers. The poachers in the area didn't really appreciate me very much. The year before I chased one of them down and took him to the Kenya Wildlife Service. I blew my knee out in the process but that's another story.

I turned off my light and quietly continued down the path. As I got closer to the lights I realized they were heading over a hill towards another mine. It turned out they were Zarura returning from a raid of another mine that night and killed two of the miners. When I reached camp I went straight to bed.

The next morning, after our work in the mine was finished, I set out for the vehicle to help get it up and running. As I was walking I noticed the tracks I left the night before. Something wasn't right. Upon closer inspection I realized I was looking at rather large lion tracks following mine. The lion had followed me for almost fifteen miles the night before and I had no idea. As it turned out the lion was not my biggest problem, it was the exposure to the mosquitoes that night!

A week later I returned to Nairobi to help a friend obtain a visa to visit family in the United States. He wanted to meet at the American embassy Friday morning at ten o'clock. He didn't speak English very well and needed my help translating. Thursday night I started to feel feverish and by Friday morning I was into full blown malarial symptoms. I called my friend and told him we would have to wait until Monday to go to the embassy.

I took the curative dose of Fansidar and went back to bed. At 10:30 A.M. I heard a distant rumble.

Twenty minutes later the phone rang. My friend told me that a bomb blast had just destroyed the American embassy. I was so sick I didn't realize what he had just told me. Later that evening, when I was feeling better, it dawned on me that if I hadn't been sick with malaria I would be buried under the blast debris. I was never more grateful to be sick in all my life.

When I returned to Washington, D. C. in September my wife was due to deliver in two weeks. Our son Erik was born on October 1, 1998. Six days later he went in for emergency surgery for a co-arctation of the aorta. They needed blood for the procedure and asked both my wife and I to donate. I wanted to donate but couldn't because of my exposure to malaria and hepatitis. The had plenty of blood for the procedure and Erik made it through the operation fine, which I was grateful for yet I couldn't help feeling robbed of the opportunity to help my first born child when he needed me most.

During my trips to Africa, the diseases and illness I experienced could have been minimized if I just had the proper guidance or counseling. I'm 32 years old and have chronic liver problems due to my exposure to malaria, hepatitis, tuberculosis and the improper treatment I received. This is why I recommend Passport Health to everyone traveling.

10 REASONS TO VISIT PASSPORT HEALTH

By: Fran Lessans, R.N., M.S. & Peter V. Savage Passport Health, Inc.

vaccinations (to avoid any unexpected and unwanted vaccines at the border).

A study from 1994 show that out of any population of 1,000 travelers staying on tourist routes in resorts or first class hotels there will be 1 case of Hepatitis A in a stay of only a weeks length. The Centers for Disease Control (CDC) recommends vaccination for Hepatitis A and an update of your Tetanus diphtheria for any trip out of the US.

10 Reasons to visit Passport Health (even if

your are going to London or Paris).

- Traveler's Diarrhea is also a prevalent affliction in first world as well as third world destinations.
 Passport Health can provide you with instructions on how to avoid getting diarrhea and provide a range of remedies for helping to control it—including prescribing antibiotics to carry with you.
- Malaria is prevalent in most tropical countries.
 Malaria is now resistant to medications once effective. Only a specialist in travel medicine can pinpoint the appropriate drug to be taken in a specific area of travel.
- 4. Having a Vaccination Certificate (yellow book) properly filled out (date must be: day/month/year—not the US sequence) given by a travel clinic serves to document what vaccinations you have had in case you get sick on your trip and to document your having any required
- 5. The first question most prospective travelers ask is "what vaccinations do I have to have to go to Brazil (Haiti, China, etc.)." The misconception in asking this question is that a traveler should worry about only the diseases that a host country fears from foreign visitors. No country requires a traveler to take prescription pills for protection against Malaria. Yet, without it, and without the additional protection of mosquito netting and repellants, travelers are likely to contract malaria. So the first question should be "what does the Centers of Disease Control say I should have for protection against disease in Brazil (Haiti, China, etc.)."
- 6. Another frequently asked question is "Can't I just go to my doctor for these shots?" The answer is, Yes; you may do that but unless your doctor happens to specialize in travel medicine;
 - * He/she will have to research what you need
 - * He/she will not be able to bill a health insurer for the visit, and
 - * To cover the cost of individually purchased vaccinations; you will pay a much higher price for less service.
- 7. A clinic, which specializes in travel medicine,

has the latest information on outbreaks around the world.

- 8. A clinic, which specialized in travel medicine, is prepared to spend the time you need to understand risk factors. A reputable travel medicine clinic should spend an hour reviewing your medical history, itinerary and any special travel medical issues (e.g. pregnancy, high altitude, rural vs. urban accommodations).
- A travel medical clinic will be prepared to discuss appropriate use of repellents and water purification and have the best, tested products available for your purchase.
- A travel medical clinic will notify you of any booster doses necessary to give you long-term immunity.

We could give you ten more reasons to visit Passport Health before your travels, but we believe you have the gist of our message. The one basic reason is Passport Health is up to date on: CDC advice, travel advisories, outbreaks of disease and changes in vaccine and medication therapies and they are likely to be less expensive because we buy in volume and can pass savings on to the travelers. Just as you would seek out a lawyer for a legal matter or an accountant for a tax matter, you will get the best advice on travel health and protection from a professional at Passport Health.

POLIO-TOO CLOSE TO HOME

By: Karen Kluge, RN, BSN Executive Director, Passport Health Boca Raton, Florida

Polio is a viral disease spread by fecal-oral and respiratory contact. However, the virus also can be transmitted by contaminated sewage or water. Humans are the only reservoir for the polio virus. The incubation period is usually 7-28 days after exposure, and persons are contagious for 4-6 weeks after infection, peak communicability is approximately one week prior to the start of symptoms. Polio is characterized by two phases, the nonspecific febrile disease (fever), and then proceeds to the acute flaccid paralytic disease. Depending on the site and progression of polio, paralysis occurs within 2 -4 days and is associated with fever and muscle pain. Persons who have contracted paralytic polio during childhood can have exacerbation of weakness, muscle pain and permanent impairment years after recovery.

Since 1979, the United States has had no indigenous acquired cases of wild polio except for rare instances from Vaccine Associated Paralytic Polio (VAPP) due to administration of the live oral vaccine (OPV). To eliminate the risk for VAPP, the inactivated polio vaccine (IPOL) is now recommended for routine vaccination. Until global eradication is accomplished, epidemics caused by wild polio virus still remain a potential threat in the United States. Except for a recent outbreak in Haiti and the Dominican Republic, most of the polio virus transmission exists in the areas of South Asia and Sub Saharan Africa. Travelers to areas or countries where polio is epidemic or endemic should be fully immunized. Adults, who are traveling and have received the primary series, need a booster dose. No serious adverse reaction to IPOL has been documented. For more information about polio or vaccination contact your local Passport Health office.

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mosquito netting, etc.

weekend hours.

with briefing book.

1. The Dairy Association's huge success with the campaign "Got Milk?" prompted them to expand advertis-

ing to Mexico. It was soon brought to their attention the Spanish translation read, "Are you lactating?"

LOST IN THE TRANSLATION

These are the nominees for the Chevy Nova Award. This is given out in honor of GM's fiasco in trying to

2. Coors put the slogan "Turn It Loose," into Spanish, where it was read as "Suffer From Diarrhea."

market this car in Central and South America. "No Va" means in Spanish, "it doesn't go."

- 3. Scandinavian vacuum manufacturer Electrolux used the following in an American campaign: "Nothing sucks like an Electrolux."
- 4. Clairol introduced the "Mist Stick," a curling iron, into Germany only to find out that "mist" is slang for manure. Not too may people had use for the "Manure Stick."
- 5. When Gerber started selling baby food in Africa, they used the same packaging as in the US, with the smiling baby on the label. Later they learned that in Africa, companies routinely put pictures on the labels of what's inside the container, since many people can't read.
- 6. Colgate introduced a toothpaste in France called Cue, the name of a notorious porno magazine.
- 7. An American T-shirt maker in Miami printed shirts for the Spanish market, which promoted the Pope's visit. Instead of "I saw the Pope" (el Papa); the shirts read, "I Saw the Potato" (la papa).
- 8. Pepsi's "Come Alive With the Pepsi Generation" translated into "Pepsi Brings Your Ancestors Back from the Grave" in Chinese.
- 9. The Coca-Cola name in China was first read as "Kekoukela," meaning "Bite the wax tadpole" or "female horse stuffed with wax," depending on the dialect. Coke then researched 40,000 characters to find a phonetic equivalent "kokou kole," translating into "happiness in the mouth."
- 10. Frank Perdue's chicken slogan, "It takes a strong man to make a tender chicken" was translated into Spanish as "it takes an aroused man to make a chicken affectionate."
- 11. When Parker Pen marketed a ballpoint pen in Mexico, its ads were supposed to have read, "It won't leak in your pocket and embarrass you." The company thought that the word "embarazar (to impregnate) meant to embarrass, so the ad read: "It won't leak in your pocket and make you pregnant!"
- 12. When American Airlines wanted to advertise its new leather first class seats in the Mexican market, it translated its "Fly in Leather" campaign literally, which meant "Fly Naked (vuela en cuero) in Spanish!

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Fran Lessans, R.N., M.S. Passport Health 845 East Fort Avenue Baltimore, Maryland 21230

- Q. I have heard that there is a new vaccine for Malaria. Is that true and what is the name?
- A. We still do not have a vaccine for Malaria, although research is underway. There is a newly approved medication called Malarone, which has been used in Europe for years. The Federal Drug Administration (FDA) has recently approved the drug for the prophylaxis against and treatment of uncomplicated falciparum malaria.
- Q. Why is my husband always bitten up by mosquitoes while I am not?
- A. Some people do attract mosquitoes more than others do. It is probably due to body chemistry.

 Mosquitoes go for humans who provide the richest source of cholesterol and B vitamins, which the pesky insects need to live but do not produce themselves. However, you can enhance protection by wearing long sleeved shirts, long pants, and long socks. Light colored clothes are best, as dark colors attract mosquitoes. Strong scents also attract mosquitoes. Avoid

- after-shave and perfumes. Also a 30% DEET product on exposed body parts and Permethrin on clothing will give you approximately 98% protection, even during peak mosquito feeding times.
- Q. I am traveling to Africa and the last time I was there I had quite a bit of trouble with eye dryness. Is there anything I can do to alleviate this problem?
- A. Artificial tears help relieve excessive dryness caused by low humidity and wind. Dryness is common during long flights in arid areas, on sailboats and cruise ships, at beaches, and while driving open vehicles. The eyes feel gritty and uncomfortable and blinking increases. Avoid decongestant eye drops for these conditions. Artificial tears also help remove grains of sand or dirt lodged in the eyes, common problems in sandy areas and in polluted cities.
- Q. Since Yellow Fever is a very rare disease and is not required for entry into Brazil, do I really need it for my trip to Brazil and Argentina?
- A. Yes. In 1996, two tourists infected in the Amazon region of Brazil died after returning to the United States and Switzerland. Recently the incidence of yellow fever has increased dramatically with 23,543 cases reported and 6,421 deaths officially reported to the World Health Organization between 1985 and 1996. The true incidence is believed to far exceed the reported cases. The disease is often misdiagnosed as hepatitis, treated abroad, or not reported.
- Q. I have recently begun traveling to underdeveloped countries for business and do not feel comfortable jogging in the street. Can you recommend a room exercise regime, since most hotels do not have exercise facilities?

- A. It is a good idea to stay indoors in the evening. You can use an elastic jump rope, available at most sporting goods stores, and lightly jump in your room to warm up. Use the elastic jump rope to exercise arms and shoulders by placing one end of the band in each hand, raise hands so they are in front of your face, with arms extended, pull the band out to the sides, then back in. While seated, put one foot on the rubber tube, with palms up, elbows at sides, pull handles up toward shoulders. Repeat each exercise 12 to 15 times. You can also climb stairs-two at a time.
- Q. I am traveling to an area where there is malaria and have been advised to take mefloquine. I have heard that mefloquine causes serious side effects. Should I take the drug?
- A. For travelers to high-risk areas, the risk of acquiring malaria and dying is significantly greater than the risk of experiencing a serious side effect from mefloquine. Over 11 million travelers have used mefloquine prophylaxis and severe reactions to this drug are rare. The great majority of mefloquine users have no side effects or only mild or temporary ones. Occasionally a traveler will develop a less severe but still troublesome neuropsychological reaction to mefloquine requiring a change to an alternate drug.
- Q. I am going to be living in a malarious area for over a year. Should I be taking the drug for that long?
- A. There is no absolute time limit on how long one can take any anti-malarial prophylactic drug. The small numbers of individuals who will experience significant side effects from anti-malarial drugs usually do so within the first few weeks of use. Many mild side effects decrease with continued use of prophylaxis.