

# Healthy Travels

Summer 2008

## All Aboard!

### The Health Risks of Cruise Ship Travel

“The convergence of a diverse passenger population within the cramped living conditions of a cruise ship results in a favorable environment for the transmission of certain diseases”

Cruise ships offer travelers a convenient way to visit exotic locations without giving up the comfortable accommodations of the developed world. But the plush living conditions found on a typical cruise ship often lull passengers into a false sense of security when it comes to travelers' health. The convergence of a diverse passenger population within the cramped living conditions of a cruise ship results in a favorable environment for the transmission of certain diseases. One particular illness that is common among cruise ship passengers is infectious gastroenteritis. Often caused by a disease agent known as 'norovirus', this illness is characterized by 1-2 days of vomiting and watery diarrhea. Additional symptoms may include fever, abdominal cramps, nausea, and headache. While a typical infection usually resolves on its own,

the debilitating symptoms may greatly impact your travel. Furthermore, norovirus can spread quickly and easily within the confines of a cruise ship, resulting in large outbreaks affecting numerous passengers.

Outbreaks of norovirus often start when food or water is contaminated by an infected food handler. However, infection can also result from direct contact with an ill person or by touching inanimate objects such as handrails or doorknobs that have been contaminated by an infected individual. The best way to avoid getting infected is to wash your hands frequently. This is especially important prior to eating, drinking, smoking, or brushing your teeth and after using the toilet or assisting a sick person. A good habit to develop is washing your hands every time you return to your cabin. Using

warm water with soap and scrubbing for at least 20 seconds is the best way to wash your hands. Ethanol-based hand sanitizers with at least 62% alcohol are a reasonable alternative when soap and water are not available. If you do get sick during your trip, visit the ship's medical facility as soon as possible and follow the recommendations of the medical staff.

General cleanliness and sanitation on board cruise ships are important for preventing the spread of norovirus and other disease agents. The Center for Disease Control and Prevention conducts inspections of most cruise ships operating out of U.S. ports. To read the most recent inspection results for your cruise ship, visit the CDC's Vessel Sanitation Program website at [www.cdc.gov/nceh/vsp](http://www.cdc.gov/nceh/vsp) and click on the "Green Sheet" link.



## Things to Know About Safe Diving

Fortunately for the traveling diver, injuries due to diving are rare. However, because of this, few health care providers have a thorough understanding of their diagnosis and treatment. For this reason, divers should be prepared to recognize a diving injury when it occurs and know how to get necessary medical treatment. They should also know how to dive safely by employing recommended preventive measures.

Injuries that can occur during or after diving include barotraumas, air gas embolism (AGE), and decompression sickness (DCS). Barotrauma is caused by pressure changes during descent or ascent that place stress on body structures such as the ears, sinuses, or lungs, resulting in pain or damage to these structures. AGE results when gases escape a damaged part of the lung and enter the circulation. DCS, also known as 'the bends', occurs when gases come out of the circulation, causing bubbles in the joints or skin. Pain is a symptom of all these injuries and can vary from mild to severe. Symptoms are often exacerbated by continued diving. Other symptoms include ringing in the ears,

decreased hearing, coughing, chest pain, loss of consciousness, weakness, tingling, vision changes, and seizures. Severe cases may even lead to death.

To minimize your risk of a diving injury, consider any changes in your health which may affect your ability or fitness to dive. Conditions such as respiratory disease, diabetes and pregnancy are of particular concern when considering diving, but all health conditions, including recent illness or surgery, should be discussed with a knowledgeable healthcare provider prior to travel. Be aware of risk factors such as dive depth (especially depths greater than 60 feet), prolonged bottom time, rapid ascent, repetitive diving, strenuous exercise in proximity to diving, and flying soon after diving. Remember to prepare well in advance and only dive within your training limitations. Use dive tables if applicable. If you believe you may have sustained a dive injury, stop diving and seek medical attention immediately. Mild cases may only require discontinuation of diving activities. More severe cases may require treatment with supplemental oxygen

or even recompression in a hyperbaric chamber.

Flying soon after diving poses a particular threat. In general, the longer a diver waits to fly after diving, the lower the risk of experiencing a decompression illness. A minimum 'no-fly' time of 12 hours is recommended after a single non-decompression dive. After multiple days of diving or repetitive dives, divers should wait a minimum of 18 hours before flying. However, these are only suggested minimum times. Increasing these times will lower a diver's injury risk.

In the event of a dive-related injury, the cost of medical evacuation and chamber treatment can be staggering. Therefore, consider purchasing a medical evacuation or dive insurance policy prior to your travel. Additional information about diving injuries and insurance can be found at the Divers Alert Network ([www.diversalertnetwork.org](http://www.diversalertnetwork.org)). This organization also maintains a 24-hour emergency consult and evacuation service (919-684-8111 or 919-684-4DAN).

## Crime & Security: Don't Forget The Basics



*Tip: Bring a photocopy of your passport with you when you travel. If you lose the original, having a copy could be invaluable.*

While crime and security threats exist almost anywhere you go, international travel can place you at higher risk. But with a little preparation, you can reduce your chances of being a victim of a crime. Before you travel, check out the Department of State websites listed on the back of this newsletter. These sites list current travel warnings and alerts worldwide, as well as country-specific information regarding crime and security. They also provide addresses and emergency telephone numbers for U.S. embassies and consulates.

While traveling abroad, there are a few simple guidelines that you should always follow. Avoid wearing expensive looking

jewelry, clothes, or accessories. Do not carry large sums of cash. Consider purchasing a money belt where you can place important items like your passport, credit cards, and large bills. If you are unable to carry important items with you, use a hotel safe to keep them secure. If you are a victim of a violent crime, try not to resist your assailants. Know how to contact the local police and the nearest U.S. embassy or consulate. If you have inquiries about crime and security while traveling, you can call the Department of State Overseas Citizens Services hotline for assistance (888-407-4747 or 202-501-4444, available 8:00am – 8:00pm EST).

## A Brief Overview of Hepatitis Vaccines

While most international travelers have heard about the risk of acquiring hepatitis overseas, many are still confused about the different types of hepatitis and what vaccines are available to prevent this illness. Hepatitis is a general term that means ‘inflammation of the liver.’ For international travelers, hepatitis is often caused by infectious agents such as viruses. There are a number of viruses that cause infectious hepatitis, but vaccines are available for only two of them.

Hepatitis A is a viral infection that is usually transmitted by contaminated food or water. It is very common throughout the developing world. Therefore, the vaccine for this virus is recommended for most international travelers. It is given in two doses separated by at least six months, but even a single dose provides good protection for several months.

Hepatitis B is another viral infection to which travelers may be exposed. Unlike Hepatitis A, this virus is typically transmitted by sexual contact, intravenous drug use, or contaminated blood products. Since most travelers are at low risk for this infection, Hepatitis B vaccine is not offered on a regular basis. Your travel health provider may consider this three-dose vaccine series based on your length of travel, planned activities and current health status.

Other causes of hepatitis (types C, D, and E) also exist but are not preventable with any vaccine that is currently available. If your itinerary puts you at heightened risk for these infections, your travel health provider can discuss other preventive measures to keep you safe. For more information about viral hepatitis, check out the CDC website on this topic at [www.cdc.gov/ncidod/diseases/hepatitis](http://www.cdc.gov/ncidod/diseases/hepatitis).



*Tip: Hepatitis B and C can be spread through unsafe tattooing practices. Avoid getting a tattoo overseas where conditions are often dangerous.*

## Recommendations for Traveling with Children

International travel can serve as an exciting and captivating learning experience for children. However, every parent should be aware of the additional health risks that young travelers face while overseas. Diseases now rare in the U.S. can still frequently occur in the developing world (e.g., diphtheria, pertussis, measles, mumps, and rubella). Therefore, in addition to administering any necessary travel-related vaccines, your travel clinic provider should review your child’s routine vaccination records. Younger children may need to receive certain vaccines on an accelerated schedule prior to travel. In such cases, discuss with your travel clinic provider how this will affect the number and spacing of future doses.

There are a number of other health risks that parents should be aware of prior to traveling overseas. Traveler’s diarrhea can affect people of all ages but is often more severe in children. Young travelers can quickly become dehydrated in the

setting of traveler’s diarrhea. Talk with your travel clinic provider about how to spot the signs and symptoms of this ailment and discuss treatment options such as oral rehydration and medication.

Since children are more likely to approach unfamiliar domestic or wild animals, they are at higher risk of acquiring animal-borne diseases such as rabies. Discuss with your travel clinic provider whether rabies vaccine is necessary and always advise children to avoid contact with animals. If you or your child is bitten by an animal, wash the wound immediately with soap and water and seek medical care as soon as possible.

Insect-borne diseases continue to be a significant health risk in many parts of the world. Protect children by using insect repellants and dressing them in pants and long-sleeved shirts when possible. For areas where malaria poses a risk, limit outdoor exposure between

dusk and dawn and ensure that sleeping accommodations are mosquito-proof (e.g., screened windows or bed-nets). Insect repellants with DEET are safe for children and are useful in preventing diseases such as malaria, yellow fever, and dengue fever. The American Academy of Pediatrics has declared that insect repellents with DEET concentrations as high as 30% are safe for children 2 months of age and older.

While exotic diseases may seem to pose the greatest threat, don’t forget about other routine preventive measures for your children. Protection from the sun not only prevents the pain and discomfort of sunburns, but reduces the risk of skin cancer later in life. Children should always be watched around water since lifeguards are often nonexistent in foreign countries. And prepare beforehand for unexpected transportation accommodations — things such as seat belts and infant car seats may not be available in many locations.

## Travel Medicine Clinic at Fort Myer



Are you planning on traveling internationally in the near future? If you are visiting a location in Africa, Asia, or Central/South America, an appointment at the travel medicine clinic can help you prepare for any disease risks you may encounter.

- The Family Health Center of Fort Myer (Rader Army Health Clinic) Travel Medicine Clinic is open on Tuesdays from 0900 to 1600.
- Appointments can be made by calling 703-696-3439.
- Schedule your appointment approximately 4-6 weeks prior to your departure date.
- Bring your medical records with you, including all prior vaccination records.

## Information Sources



Shoreland's Travel Health Online — [www.tripprep.com](http://www.tripprep.com)

Centers for Disease Control & Prevention

- Traveler's Health Website — [www.cdc.gov/travel](http://www.cdc.gov/travel)
- Travel Notice Website — [www.cdc.gov/travel/notices.aspx](http://www.cdc.gov/travel/notices.aspx)

U.S. Department of State

- Travel & Business Website — [www.state.gov/travelandbusiness](http://www.state.gov/travelandbusiness)
- Embassy & Consulate Website — [usembassy.state.gov](http://usembassy.state.gov)

World Health Organization Travel Website — [www.who.int/topics/travel/en](http://www.who.int/topics/travel/en)

International Association for Medical Assistance to Travelers — [www.iamat.org](http://www.iamat.org)

International Society of Travel Medicine — [www.istm.org](http://www.istm.org)

American Society of Tropical Medicine & Hygiene — [www.astmh.org](http://www.astmh.org)

U.S. Army Center for Health Promotion and Preventive Medicine — <http://chppm-www.apgea.army.mil>

*Tip: Check out these websites for more information about staying healthy while traveling abroad.*

## Fast Facts

- The vast majority of travel-related illnesses are preventable.
- You should visit the travel clinic 4-6 weeks before traveling to Africa, Asia, Central America, or South America.
- Vaccines are the safest, most effective means of preventing illness.
- Avoiding insect bites by using DEET-containing repellents is the only method of preventing some insect-borne diseases.
- One of the best ways to reduce the risk of illness while traveling is to wash your hands frequently.

## Healthy Travels

*Healthy Travels* is a quarterly publication written by the residents of the NCC-WRAIR General Preventive Medicine Residency. The assertions contained herein are the personal views of the authors and are not to be construed as official. Although every effort is made to ensure statements are consistent with U.S. Army and COCOM disease control policies, the reader is referred to the appropriate headquarters' preventive medicine officer for definitive guidance and policy statements regarding official travel medicine requirements. Approved for public release; distribution is unlimited. Questions, comments and letters should be addressed to: Division of Preventive Medicine (MCMR-UWK), Walter Reed Army Institute of Research, ATTN: Residency Director, Silver Spring, MD 20910-7500

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