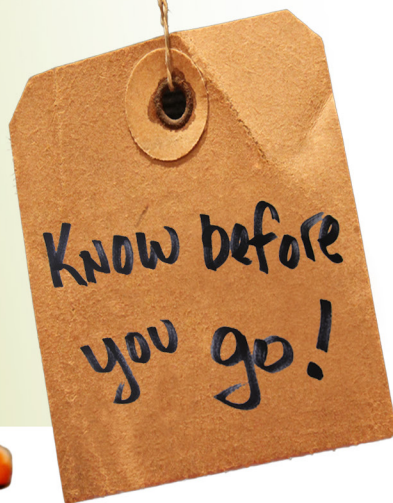
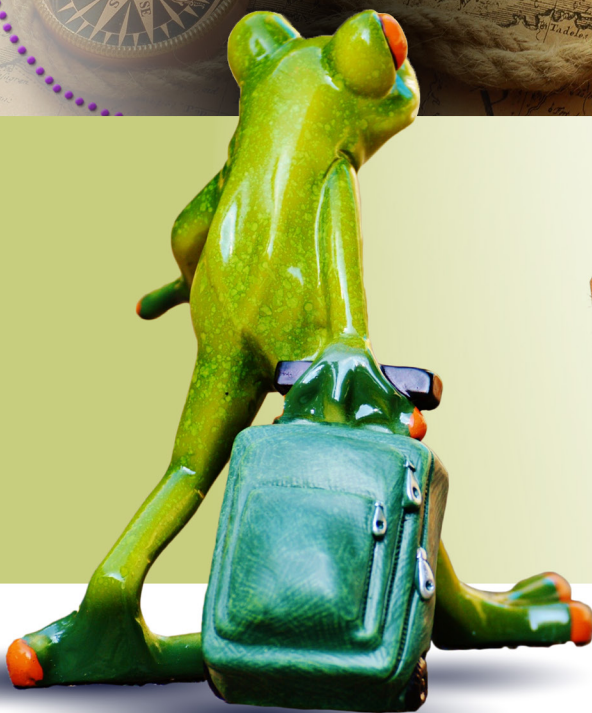


YOUR PASSPORT TO INTERNATIONAL TRAVEL HEALTH AND SAFETY



SACO RIVER MEDICAL GROUP



Do you know...



...what's waiting

at the end

of the runway?

WE LIVE IN BUBBLE LAND

Here in the US and Canada, we are protected from so many things. We have safe food and clean drinking water, good sanitation, reliable power, excellent medical care, and most

of the world's nastiest infectious diseases are just things we hear about in the news. We live in a bubble of security where our health is pretty much under control...

then we get on the airplane and fly out of the bubble.

WE WILL HELP YOU LEARN
WHAT YOU NEED TO

Know before you go

Fill in info for each person going on the trip



LOGISTICS

Previous International Travel History
When did you go? Where and for how long?

What date are you leaving?

What date are you returning?

Are you going to a rural area, an urban area, or both?

What activities will you be doing? (extreme rock hopping?)

Airlines and flight arrangements—Special Needs

Special arrangements should be made when the flight reservations are made.

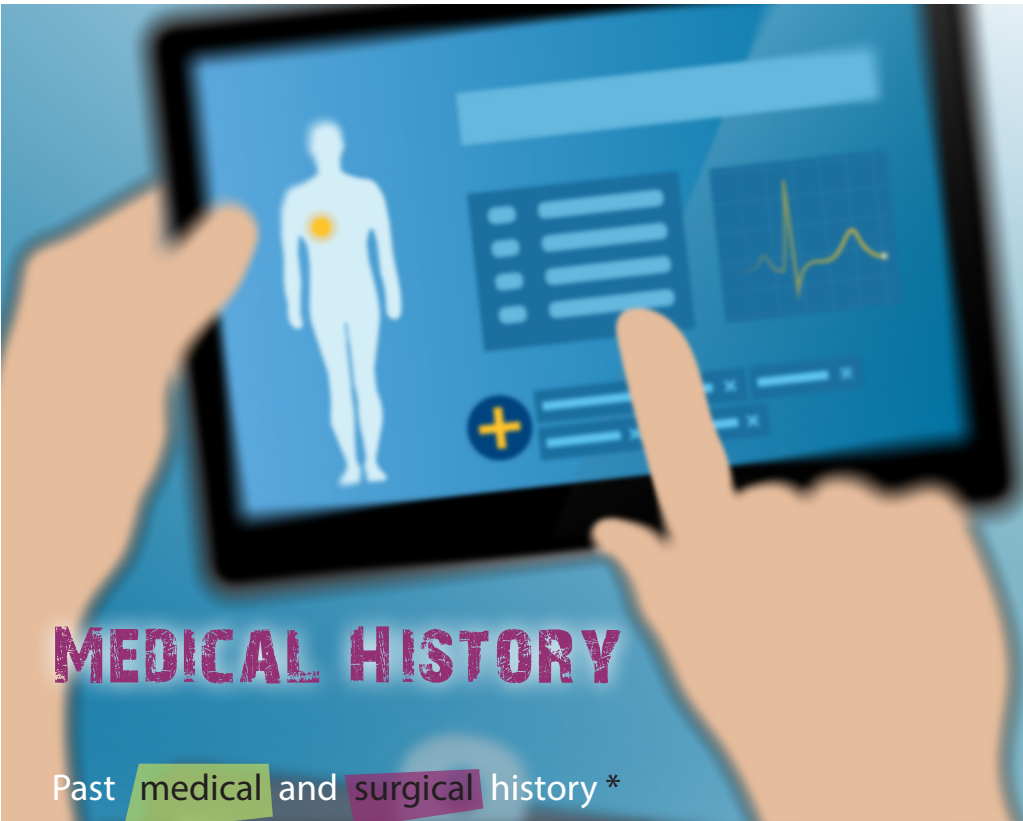
- Children traveling alone*
- Handicap or wheelchair assistance
- Supplemental oxygen during the flight
- Food preferences—vegan, vegetarian, Kosher, diabetic meal
- Food allergies (peanuts, celiac disease, etc.)

(Yes, these boxes are for you to write in.)

What forms of transportation will you use?

(Uber camels are a thing, right?)





MEDICAL HISTORY

Past **medical** and **surgical** history*

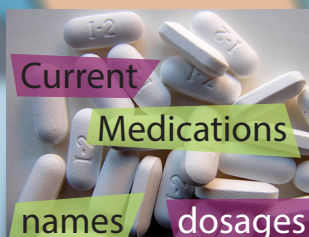
Blank lined area for past medical and surgical history.

*This info will be important if you go to the hospital on your trip

Allergies* and **immune status***

Blank lined area for allergies and immune status.

*Peanuts, celiac, etc., and history of autoimmune diseases, HIV, DM, etc.



Blank lined area for current medications names and dosages.

- Bring both meds *and* scripts
- Bring extra, in case you are delayed
- Bring original containers, with your name and script info on them
- Bring OTC meds (e.g., ibuprofen), too
- Bring extra glasses/contacts and eye scripts
- Diabetics—need refrigeration?
- Sickle Cell and COPD patients—don't fly to airports above 8,000'
- Take 325mg Aspirin daily

THINGS TO DO AND BRING BEFORE YOU GO

Things to **do**

- Get all applicable vaccinations—see list on following page, along with good online resources
- Consider evacuation insurance, a global entry card, and/or mobile passport
- Determine if, and how, you are going to exchange your money
- Inform your bank/credit card company of your plans; consider asking your bank to raise your daily withdrawal limit (ATMs are best for day-to-day cash on foreign trips)

Things to **bring**

- Clothing and footwear appropriate for the environment and weather
- Broad-brimmed hats, sunblock, sunglasses
- Travel comfort aids: motion sickness meds, ear plugs, neck pillow, etc.
- OTC meds for problems you don't typically see at home (e.g., diarrhea, see next spread)

And while **in the air**

- Stay hydrated—at least 1 liter of water every 2 hours (and urinate every 3 – 4 hours)
- Get up and stretch at least every 2 hours, to minimize risk of blood clots



We're not sure what this is, but we'll avoid it anyway.



Beware of "going native"

Going barefoot on a warm, far-flung beach in January, when you're from Fargo or Bangor, may seem lovely, but it's also potentially dangerous.

Beside the obvious perils of blisters, sunburn, thorns, and other foot injuries, in many parts of the world parasites lurk underfoot just waiting for your unshorn sole. Among them:

Strongyloides stercoralis—Threadworm, creeping eruption

Necator americanis—New World hookworm

Ancylostoma duodenale—Old World hookworm

Tunga penetrans—chigoe flea

SEXUALLY TRANSMITTED DISEASES

Extremely common— use safe sex practices

ACCIDENTS

Motor vehicle accidents represent the highest risk for death among travelers

ALTITUDE

Above 8,000' know the symptoms of Acute Mountain Sickness, High Altitude Pulmonary Edema, and High Altitude Cerebral Edema. Go down until symptoms subside.



Hot springs? Maybe not so hot... (and swimming can be sketchy, too)

Yet another warm attraction, hot springs, and swimming in dirty water, may expose you to other nasty critters.

Schistosomiasis— swimmer's itch, duck itch (irritating)

Naegleria fowleri— amebic meningitis (extremely rare, but over 95% fatal)

We're not saying don't swim or visit hot springs, just be careful.

WARNINGS

Be careful with water

Dehydration is dangerous, and hydration is really important, but you must protect yourself. Just because water looks clean, doesn't mean it is.

- Only use bottled water with the factory seal intact
- Purify water by boiling, filtering, treating with iodine or chlorine, or UV light (Steripen)
- Neither alcohol nor freezing kills microbes—beware of ice cubes

and...

food

- Peel vegetables or cook them— nothing raw
- Only eat well-cooked meat, served hot
- Do not let flies land on your food— they carry disease on their feet

The sun is dangerous: wear sunscreen, sunglasses, and broad-brimmed hats

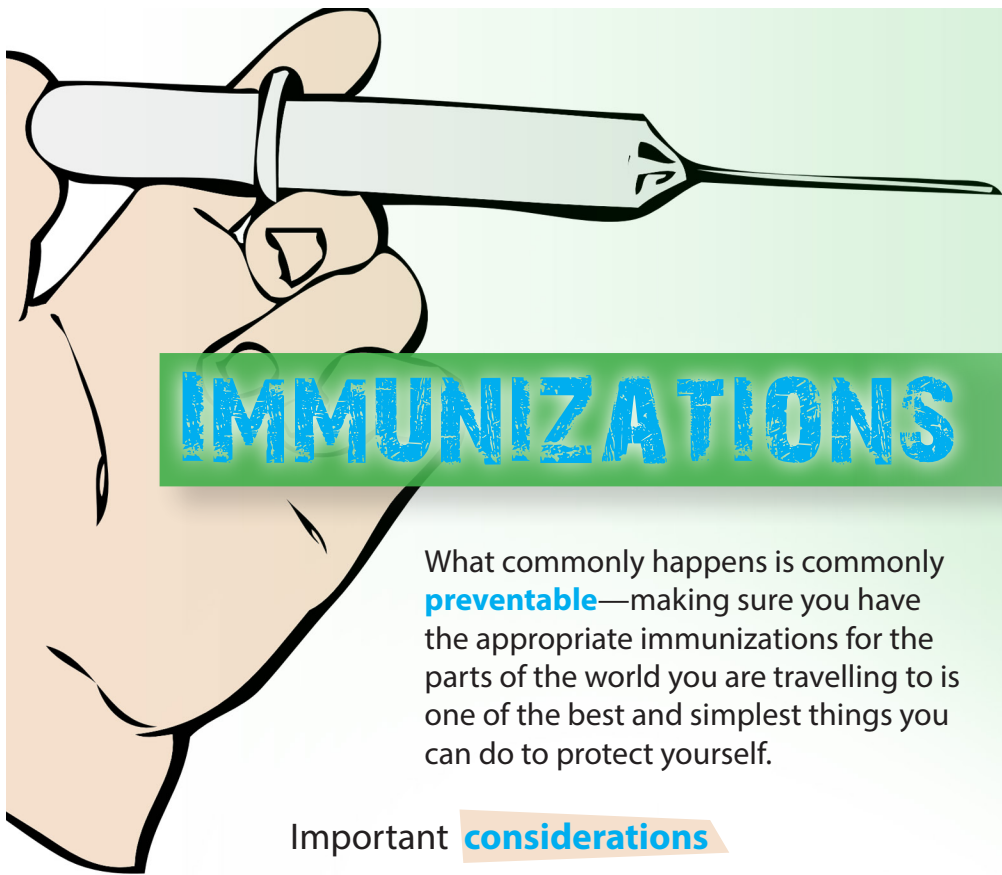


You definitely don't want traveler's diarrhea

This is by far the most common medical problem for travelers. It can be simply caused by throwing the stomach off its normal schedule, or by consuming contaminated food or water and improper hand washing. If the diarrhea comes on days to weeks after your trip, it was likely caused by parasites such as ameba, protozoa, or worms.

Treatment: stay hydrated, take Pepto-Bismol; if not improving after 24 hours, consider antibiotic: Bactrim DS or Cipro, 500mg by mouth, every 12 hours, for 2 doses





What commonly happens is commonly **preventable**—making sure you have the appropriate immunizations for the parts of the world you are travelling to is one of the best and simplest things you can do to protect yourself.

Important **considerations**

- Plan ahead: at least 4 – 6 weeks in advance of travel.
- Check the immunization history of each person in your party.
- What childhood immunizations were administered?
- Were there any previous travel immunizations?
- Military immunizations?
- Does anyone have an International Certificate of Vaccination or Prophylaxis approved by the World Health Organization (yellow record form)?
- Is everyone vaccinated against yellow fever (a very important vaccine)?
- Have there been any past adverse reactions to vaccines?
- Does anyone have an egg allergy (some vaccines contain egg protein; check with your doctor)?
- Record everyone's immune status.
- Make a list and schedule for needed vaccines.

Tuberculosis

TB is a very common illness worldwide, spread by infectious droplets in a cough. Active travelers should have a simple test for TB with PPD every 1 – 2 years.

You probably **already have**

these

(Usual childhood vaccines—ages 0 to 18 years old)

- MMR
- Hepatitis B & Hepatitis A
- Rotavirus
- Tetanus & Diphtheria & TDap (acellular pertussis)
- Haemophilus influenza type b
- Pneumococcal conjugate (PCV 13)
- Varicella
- Poliovirus, inactivated
- Influenza
- Meningococcal
- Human Papillomavirus

Additional **resources**

Centers for Disease Control:
www.cdc.gov/travel/

State Department for specific country warnings:
www.travel.state.gov/

World Health Organization:
who.int/ith/2016-ith-county-list.pdf



Recommended **Travel**

Vaccines

- Tetanus & Diphtheria & TDap**—every 10 years, essential for all travelers
- HAV + HBV** as a combined vaccine, Twinrix
- Typhoid live/oral**—Vivotif Berna—one capsule every other day x 4 doses; also available as an injectable
- Yellow Fever**—live vaccine. Life-long immunity; required by some countries; risk in sub-Saharan Africa and Amazon basin; vaccine must be administered at an approved Yellow Vaccine Center
- Meningococcal**—risk in sub-Saharan Africa, the Himalayas, and for travelers to Mecca; if primary shot <age 7, then booster at 3 years; primary >age 7, booster at 5 years; polysaccharide vaccine
- Rabies** pre-exposure—10ml IM on days 0, 7, 21 or 28; will require 2 additional doses post-exposure
- Japanese Encephalitis**—1.0ml on days 0, 7, and 30; 90% + efficacy
- Cholera**—will be available again in the near future.
- Influenza**—a new vaccine is developed each year, depending on the anticipated strains

Clockwise from right: female *Aedes aegypti* mosquito, the species responsible for the transmission of diseases such as Zika, dengue fever, and many others; a deer tick (*Ixodes scapularis*, below), the vector for Lyme Disease, and a species of *Simulium* black fly, which can carry river blindness.



INSECTBORNE DISEASES

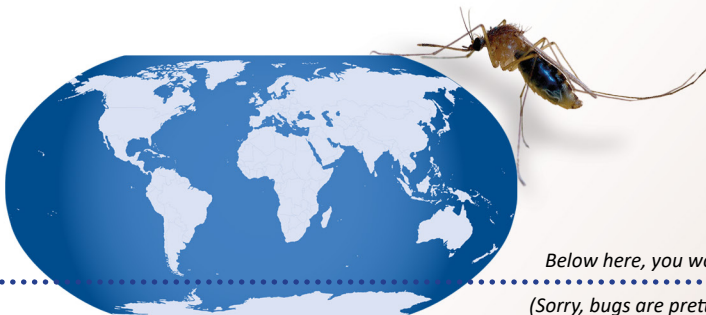
If you travel to tropical or near-tropical places outside the US, one of your biggest challenges will be **bites and stings**.

“ Unless you are going to Antarctica, you should be prepared for biting insects

Mosquitos— there are many mosquitoborne diseases including *malaria*, *dengue fever*, *Zika*, and *Chikungunya*; mosquitos are ubiquitous and cosmopolitan, found in every environment except polar—wherever you go, there they are.

Black flies— certain species cause *river blindness* in large parts of South America and much of non-arid Africa.

Ticks— are also world travelers, and carry at least 16 illnesses, including *Lyme Disease*.



Below here, you won't need bug spray
(Sorry, bugs are pretty much everywhere.)

MALARIA

Of all the insectborne diseases, malaria is by far the most widespread and dangerous threat to public health. Malaria is found straddling the equator in over 100 countries, putting almost half the world's population at risk, and according to the WHO, it infected an estimated 212 million people in 2015.

- Malaria makes you very, very sick
- Signs and symptoms include high fever, shaking rigors, intense body aches and pains, nausea, and a headache
- It is one of the most common illnesses on earth
- It is one of the most common causes of death on earth
- It is spread by the *anopheles* mosquito
- While there is no immunization available, there are prophylactic medications that can be taken to prevent it
- You want to prevent malaria!

Prophylactic antimalarial medications

- ▷ **Doxycycline** (100mg by mouth, daily); start at least 2 days before potential exposure to malaria; continue daily throughout the trip and continue for at least 7 days after the exposure is over. Doxycycline will protect against all forms of Malaria and 12 of the 16 tickborne illnesses.
- ▷ **Malarone** (atovaquone 250mg + proguanil HCl 100mg) daily by mouth; start 2 days before exposure and continue for 7 days after. Malarone will prevent the most lethal form of malaria.
- ▷ **Mefloquine** (250mg by mouth weekly); start 2 weeks before travel/exposure and continue throughout the duration of your trip and for 4 weeks following exposure. While you only have to take 1 dose per week, it is not commonly used because of potential side effects: night terrors and psychotic behavior. It will prevent 2 of the 5 forms of malaria, *Plasmodium falciparum* and *Plasmodium vivax*.
- ▷ **Chloroquine** is rarely used because of widespread resistance to it.

Insect repellents and insecticides

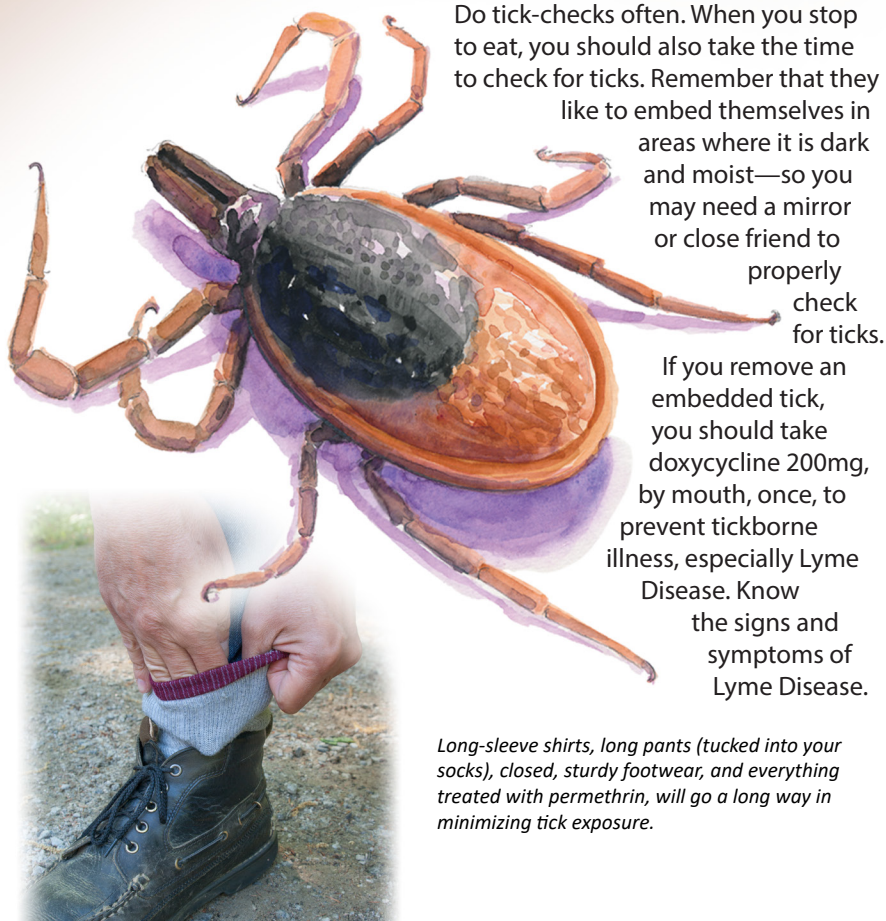
- ▷ **DEET** is an excellent insect repellent designed to be applied directly to exposed skin. For infants (>2 months) and small children, the strength should be limited <30%.
- ▷ **Permethrin** is a repellent and insecticide that will not adhere to skin, but which works well applied to clothing. It creates a kill zone that will last several days. It is commonly applied to tents and mosquito netting to help create an insect-free area, and is safe for all ages.

- ▷ **Picardin** is an insect repellent that works on mosquitoes, ticks, and chiggers. It is a synthetic compound first made in the 1980s that resembles the natural compound piperine, which is found in the group of plants that are used to produce black pepper, and has been available in the US since 2005. It is considered to be as equally effective as DEET, but is less oily, odorless, and not as much is absorbed through the skin; it is considered safe for all ages.

Clothing and Behavior

- ▷ Wear protective clothing, long-sleeve shirts and long pants to minimize skin exposure.
- ▷ Use clothing treated with permethrin.
- ▷ Move inside at dusk (when many blood-sucking insects emerge to feed).
- ▷ Sleep under mosquito netting impregnated with permethrin.

Tick-Checks



Do tick-checks often. When you stop to eat, you should also take the time to check for ticks. Remember that they like to embed themselves in areas where it is dark and moist—so you may need a mirror or close friend to properly check for ticks.

If you remove an embedded tick, you should take doxycycline 200mg, by mouth, once, to prevent tickborne illness, especially Lyme Disease. Know the signs and symptoms of Lyme Disease.

Long-sleeve shirts, long pants (tucked into your socks), closed, sturdy footwear, and everything treated with permethrin, will go a long way in minimizing tick exposure.



Emergency Kit

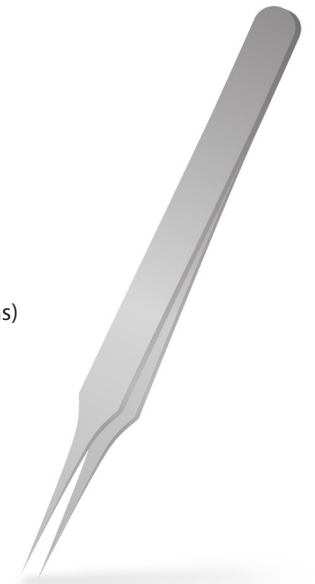
(to avoid security hassles, put the kit in your checked luggage)

- Sewing kit: needle and several kinds of thread
- Duct tape: wrap several feet around a pencil
- Small multi-tool
- Safety pins: several sizes

Traveler's Med Kit

(to avoid security hassles, put the kit in your checked luggage)

- Pepto-Bismol (diarrhea)
- Diphenhydramine (allergies)
- Meclizine (motion sickness)
- Bactrim DS, Cipro, Doxycycline (antibiotics)
- NSAIDs (aspirin, ibuprofen, for aches and pains)
- Tweezers (tick removal)
- Potable Aqua tablets (water purification)
- Povidone Iodine (disinfectant)
- Sunscreen (including zinc oxide cream)
- Small knife
- Mole Foam and athletic tape (for blisters)
- Disinfectant wipes
- Headlamp





Dr. Hubbell in Haiti following the 2010 earthquake

Travel Medicine Consultation Service

Dr. Frank Hubbell, DO
Saco River Medical Group

**WHEREVER YOU GO
HERE WE ARE**

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