VACCINES (“shots”) for Travel

How do I know which vaccines I should get before I travel?
You should visit a travel clinic, or your regular clinic, and they can help you decide which vaccines are indicated for your travel. It is best if you go at least one month before travel but if you need to go closer to your travel it is still better than not going at all. There is also a website (http://www.cdc.gov/travel/) that can give you an idea of the vaccines and medicine you will need. Make sure you bring any vaccine records you have with you to the clinic.

How does the doctor/nurse decide which vaccines they recommend to me?
There are benefits, risks and costs to all vaccines. Your doctor or nurse will recommend a vaccine when the benefit of the vaccine (how likely it will prevent you from becoming ill) outweighs the risks and cost of the vaccine. You should ask questions you have about each vaccine to your doctor or nurse.

What are the vaccines that my doctor/nurse may discuss with me?
There are 2 groups of vaccines. Those that are routine vaccines, that you should have whether or not you travel, and those you only need to get if you travel internationally.

Routine or regular vaccines
There are several vaccines that are considered routine that your doctor or nurse may recommend. Most of these you had as a child.
--You should have a Tetanus every 5-10 years.
--You should have had at least 2 measles vaccines at sometime in your life.
--You should have a polio booster once as an adult after completing the primary series.
--If you are older than 65 years you should have a pneumonia (pneumococcal) vaccine.
--If you have never had the disease chickenpox, or the vaccine, you should tell your doctor.
--Most children and teenagers should have had a hepatitis B series.

Travel Vaccines

Hepatitis A
Hepatitis A is a very common viral infection that people catch from food and water. If you were born in another country you may have had this disease as a child. When you are a young child this disease is not severe. If you get this disease as an adult you may become very ill and could even die. You can have your blood checked to see if you ever had this disease (ask your doctor/nurse for details).

If you had this disease as a child you cannot catch it again. If you do not know and don’t get the blood test you should get the vaccine before you travel. Two doses more than 6 months apart provide optimal protection, lifetime protection. However, at least one dose preferably 4-6 weeks but even up to the week before travel, will protect most travelers. The second dose provides the long term protection. You only need one vaccine before you travel and that will protect you during your trip. You should get a second vaccine 6-12 months after the first and then you are protected for the rest of your life.

Typhoid
Typhoid is another disease that usually comes from contaminated food or water. It usually causes very high fevers and pain in the stomach area. It can become very serious and cause death. **If you are traveling to visit your friends and family in your country of origin you are the most likely kind of traveler to get this disease.** There is a pill and a shot form of the vaccine. It takes 7 days to take all the pills and you need to finish these before you leave. The pill form is more complicated but lasts for 5 years before you need it again. The shot form is just one shot. The shot lasts for 2 years before you need it again.

**Meningitis**
Meningitis is an infection around the brain. There is a vaccine for the bacterial kind of meningitis that is especially common in some parts of Africa and if you are traveling to these areas your doctor/nurse will recommend this vaccine. It is also required by Saudi Arabia for entry, if you plan to attend the Hajj because this disease is very common in these settings. In other areas it might be indicated if you are staying with friends and family, especially if you will be there for a long-time. Ask your doctor or nurse how long before you need another.

**Flu**
The flu (influenza) causes fevers, cough, headaches, muscle aches and can cause serious illness even death. In North America it occurs in the winter but in the tropics it occurs year-round. It is very common in travelers. The flu strain causing illness changes every year. To be protected, you need the vaccine each year.

**Rabies**
Rabies is a very serious disease that most people from a dog bite or a bite from a bat. Many other animals, like monkeys, skunks and raccoons, can also cause this disease. If you are bitten by an animal while you are traveling you should scrub the bite wound for at least 5 minutes with soap and water and see a doctor as soon as possible after the bite so you can start a series of shots immediately. Getting the vaccine is very important, as everyone who develops rabies, dies from rabies. There is not any treatment once you get sick.

There is a vaccine for rabies to prevent the disease in case of a bite, but it is expensive and you need at least 3 weeks (3 separate shots). If you will be traveling for a long period you should consider getting these shots. Children are especially at risk of getting bit by dogs and not telling anyone about a bite. So, it is important to think of vaccinating children.

**Yellow Fever**
Yellow fever occurs in parts of Africa and South America. It causes very serious illness and usually death. This vaccine is frequently **required** with travel to certain areas or may be required if crossing between countries during travel. If you get this vaccine you will be given a “yellow card” that you should take with you to prove you got this vaccine. People get this disease by mosquito bites so mosquitoes should be avoided (see Malaria handout). This vaccine lasts for 10 years before you need another one.

**Japanese Encephalitis**
This disease is in Southeast Asia and South Asia. People get this disease from mosquitoes,. If you are visiting areas outside major cities, particularly in rural areas where there are rice paddies and or pigs for more than a month your doctor/nurse may recommend this vaccine for you. You need at least three separate shots that must be started a few weeks before travel to be fully protected.
How to prevent and treat Diarrhea while you are traveling

Why might I get diarrhea while I am traveling?

There are many infections people can get while traveling that cause diarrhea. Many of these infections do not affect the people living in the areas that you are traveling since they may have had them before (and are immune). People also get diarrhea while traveling from the stress of traveling and changing their diet.

If I am visiting a country I grew up in am I protected from getting diarrhea?

No. There are some infections you may have had as a child that you will not get again even if you are exposed to them. However, most of the infections that cause diarrhea do not produce long-term protection—so you can get them again when you visit.

How do I know if my diarrhea is from infection or from other reasons?

It can be difficult to tell the difference. If you are having just two or three loose stools a day and no other symptoms, your diarrhea is more likely not caused by an infection. If you are having many watery stools it is likely caused by infection. Having other symptoms with the diarrhea such as blood in the stool, fever, stomach pain, or nausea make infection very likely.

How do I avoid getting diarrhea?

The most important and easy thing to do to prevent diarrhea is frequent hand washing. This is especially important before eating meals, but the more often you wash your hands the better. Since soap and water are not always available, the alcohol-based hand sanitizers are very convenient (and work very well). You can buy these at any pharmacy, grocery, or convenience store in the United States--take them along with you. If you don’t know how to find these ask your doctor or nurse.

Certain foods are more likely to be safe. Any food or drink that is very hot when it is served is safe. Breads and sweets are considered safe. Foods that are more likely to make you sick are uncooked vegetables, salads, and any raw or undercooked seafood, meats or fish. If you wash your hands and use a clean knife to peel and cut fruit it is usually safe. Avoid fruits that do not have a peeling, such as berries. Dairy products, such as milk and cheese are not safe unless they are treated (such as pasteurizing). You can make your raw milk safe by heating it until it starts to boil and letting it cool down. Boxed milk (irradiated milk) is safe to drink.

Water can make you ill as well. Like milk, if you boil your water that will make it safe to drink. Bottled water is also usually safe. Bottled, carbonated beverages (ones with bubbles such as soda) are safe to drink. Carbonation kills germs over a four hour period, so carbonating it at the “tap” does not make it safe if the water mixed in was
contaminated. You should avoid ice cubes, unless made with safe water and should brush teeth with safe water.

It may help you to more gracefully avoid certain foods if you tell your host that your doctor told you not to eat certain foods because “your stomach is not used to” these foods anymore.

**What do I do if I get diarrhea?**

There are two types of medicine for diarrhea in travelers. First, there are medicines that slow down the diarrhea but don’t treat the infection causing it. These medicines help decrease the symptoms. The most commonly used are loperamide (“Imodium”) and Bismuth subsalicylate (“Pepto-bismol”), which are both available without a prescription at any pharmacy. These should not be used in young children.

Also, there are antibiotics to cure the infection. These which decrease the number of days you are sick.

When diarrhea is very minor (two or three loose stools a day) it is probably not infectious and using either loperamide or Bismuth subsalicylate to help with the symptoms is usually enough. The doses and directions are below.

When you have lots of watery stools you should use the antibiotic that your doctor or nurse will give you to take on your trip. You can also use the loperamide and Bismuth subsalicylate for symptoms until the antibiotic works. If you are severely ill, have fever or have blood in the stool you should only use the antibiotic and NOT the loperamide or Bismuth subsalicylate.

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**Things to remember while you Travel (Carry with your travel documents)**

**Don’t Get Diarrhea.**

**WASH HANDS,** you cannot wash them enough, especially before eating (substitute alcohol based hand sanitizers like Purell or Aavanguard if more convenient).

**Foods to avoid:** Raw or undercooked meats, seafood, and fish; untreated milk or cheese; lettuce and raw vegetables. Fruits should be prepared in a clean manner.

**Water and milk** can be made safe to drink by bringing to a boil and letting cool down. Commercially bottle drinks are usually safe.

If you have one or two loose stools a day use only medicines to help with symptoms, if lots of watery stools, especially with blood in the stools, pain, or fever, take an antibiotic.

**MEDICATIONS For diarrhea**

**To help with symptoms:**
loperamide ("Imodium")
**Directions:** Take two tablets to start, then take one pill after each stool (do not take more than 8 in 24 hours). Don’t use this medicine in babies, young children or when you are pregnant.

Bismuth subsalicylate ("Pepto-bismol")
**Directions:** If using tablets take two tablets every 30 minutes until diarrhea decreases. Do not take more than 16 tablets in 24 hours. If taking liquid, take 6 teaspoons (30 mls) every 30 minutes until diarrhea decreases. Do not take more than 8 times during 24 hours. Do not use in babies and young children.

**To treat an infection:**

**Antibiotic:** Your doctor or nurse will give you an antibiotic to take with you that you can take if you get bad diarrhea. Make sure you understand how to use this before leaving the office. The names of some common antibiotics are Azithromycin (Zithromax), Ciprofloxacin, Levofloxacin (Levoquin), and Rifaxamin.
Injuries, Accidents and Medical Problems while Traveling

Why is this important?
The most common cause of problems and death while traveling is injuries/accidents or having a medical problem like a heart attack or stroke. Your regular insurance will usually NOT assist you during your travel or pay to get you to a good hospital or back the United States.

Can I really do anything to prevent accidents or medical problems during travel?
Yes, good decisions can make injuries/accidents less likely. Also, you can purchase insurance for your travel that can assist you in getting good medical care and in getting you back to your home if you have an accident or a serious medical problem.

What kind of things can I do to prevent trauma/accidents?
Motor vehicles are the most important cause of trauma/accidents. Seat belts, and car seats or booster seats for kids, are extremely important and should be used whenever possible. You may need to take booster seats or car seats with you on your trip. High speed, open road travel is the most dangerous. Avoid traveling at night. Try to minimize the amount of motor vehicle travel you do. Motorcycles and bicycles are particularly dangerous and should be avoided. If you need to use either of these you should make sure you wear a helmet (you might need to take this with you), and avoid busy roads. Traveling in the back of pick up trucks, in over-crowded cars, on the tops or buses or trains is extremely dangerous.

Children are at high risk around roads whether they are in a car or not. Children should be observed closely around roadways and older children need to be reminded that the traffic rules they know in the United States don’t apply in the area they are visiting.

Drowning in water is a common cause of death in children. Most children are not swimming when they drown—they fall into the water. You should closely watch your children around water—being close enough to touch them if they are in danger. Being aware of the dangers and being careful around water is very important.

Small infants and toddlers who are crawling can get into many things like electrical wires, rat poison and other things, so again, close observation and checking areas they will be playing is important. Dog bites occur primarily in children, and most bites usually happen around the homes of friends or families or when walking along roads.

What can I do to avoid medical problems?
There is not much you can do to avoid problems that may occur while you travel such as heart attacks or strokes. However, if you have medical problems like heart disease, high blood pressure, diabetes, kidney problems or others, you should check with your doctor before you go and take a copy of important medical information. For example, if you have heart disease you should bring a copy of your EKG and a list of your medications. You should carry these with you, for example, aboard the airplane. Your doctor or nurse can give you a letter stating you need these medicines in case you are asked by customs...
agents. You should carry the medications (in the bottles they came in from the pharmacy) in your carry on luggage.

**Is there anything else I can do?**

To get someone who is sick or injured back to the U.S. can cost tens of thousands of dollars without insurance. There are insurance plans that you can buy that will help you in case of emergency during your travel and will assure that you get to a good medical facility and can get home if you have an accident or a serious medical problem. You can contact one of these companies (below) and purchase the insurance for you and/or your family for the duration of your travel.

**Finding Travel/Evacuation Insurance**

There are many companies that offer this insurance and some perform better than others. There are internet sites that will allow you to compare prices (search for “Travelers Insurance”).

There are many companies that supply travel/evacuation insurance to help to get you transported back to the United States even if you have a medical emergency. Most cover only US citizens, however, there is one company that will provide insurance and assistance to non-U.S. Citizens (i.e. those who hold a Green Card):

**International SOS**

International SOS Assistance, Inc.
3600 Horizon Boulevard
Suite 300
Trevose, PA USA 19053
Phone: 1-800-523-8930
Website: [http://www.internationalsos.com/buymembership/](http://www.internationalsos.com/buymembership/)
How to avoid Malaria and other diseases you might catch from insects

What is malaria?

Malaria is a disease that is transmitted by mosquitoes to humans when an infected mosquito bites a person. It usually causes high fevers, chills, headaches, and body aches. The parasite, once in the human body, travels to the liver through the blood. The person does not get sick until the malaria parasite comes out of the liver. The parasite can stay in the liver for a very long time but the worst type of malaria usually comes out of the liver within two weeks after the bite.

Why is malaria important?

There is no vaccine to protect you from malaria. Malaria commonly causes very serious disease and DEATH. People can die within 12 hours from the time they get their first symptoms. It is important to do all you can to prevent malaria which includes avoiding mosquito bites and taking a medicine while you travel and for a period after you return.

What if I had malaria in the past, am I protected?

People do become partially immune (protected) against malaria if they have had it many times in the past. However, the immunity (protection) wears off quickly, usually within a year or two of the last malaria episode. Therefore, you are NOT PROTECTED against getting malaria even if you have had it many times in the past.

How do I prevent mosquito bites?

There are many things you can do to prevent mosquito and other insect bites. This will not only protect you against malaria but may prevent other serious diseases like yellow fever, Japanese encephalitis, and Dengue fever. Mosquitoes that carry malaria generally bite from sunset until sunrise, but mosquitoes that bite during the day cause other diseases, so they are also best avoided.

Some simple things to avoid mosquito bites include:
--Wear protective clothing (long sleeve shirts and pants).
--Air-conditioning deters mosquitoes and windows that can be shut or at least with screens can help decrease the number of mosquito bites.
--Use a net over the bed (bednet) at night whenever possible. It is best if the bednet has been treated with chemicals (ITN—insecticide treated bednet). You can buy nets which have already been treated or you can treat your own with permethrin. There are also mosquito tents available that are more costly but are very convenient and can be bought in outdoor recreational stores or over the internet..

It is important to use mosquito repellants. The best mosquito repellant is DEET (N,N diethyl metatoluamide”). It is important to use products that have 25-50% DEET in them. These are widely available from most pharmacies, grocery stores, and convenience stores. There are many brands (i.e. Repel, Off, Cutters). Simply look on the side of the product under “Ingredients” to make sure it contains DEET and to find the correct
percentage. There are some DEET products available as a “slow-release” lotion (i.e. Ultrathon, Sawyer). These may contain less than 25% DEET but work well. DEET should be applied every 4-6 hours…and particularly before going to sleep. It is safe in kids and in pregnant women but you need to be careful not to get it into eyes or mouths. So, be careful not to put it on hands or near eyes of young children.

For the best protection you should treat your clothing with permethrin and use the DEET on your skin. Permethrin, the same chemical used on bednets, is safe and when clothes are properly treated, can last many weeks with one treatment. In the U.S. permethrin is available at outdoor recreation stores (i.e. REI Coop,) and can also be purchased over the internet. The best way to treat clothing is buying a formulation that you can prepare and dip your clothing in. If you have questions, ask your doctor or nurse to assist you. There are other repellants available but many do not protect as long or have as long a safety record as DEET.

Can I use DEET on the skin and Permethrin on the clothes of my kids? Yes. DEET is safe for use on kids. Do not apply more often than instructed on the bottle. In small children do not place close to eyes or on hands that they will place in their mouths. Insecticide treated bednets are very convenient with children and should be used around sleeping areas.

What medication should I take? There are several medications available and you should discuss with your doctor or nurse which medication is best for you and your children. If you are going to an area with malaria it is extremely important that you, and your children, take a medication and take it as directed. Remember that you must complete the medicine as directed, which frequently a month after leaving the malaria area. Make sure you understand how to take the medicine before leaving the doctor/nurses office.

Things to remember while you Travel (Carry with your travel documents):

Use Bednets, mosquito repellant and take your medicine as directed.

If you are diagnosed with malaria while traveling, you may take the treatment prescribed but continue to take the medicine given to you to prevent malaria.

If you develop a fever after return, even up to year after return, be sure to tell your doctor that you visited an area with malaria and suggest that you be tested for malaria.
**Taking children with you on your trip?**

**Do my children need to go to a travel clinic or a pediatrician before travel?**

**YES.** Your children are even more likely than you to have an illness or an accident while traveling.

**What kind of preparation for travel do my children need?**

Like you, they will need to have vaccines against diseases and medicines to prevent malaria. In addition, you (the caregiver) will need to learn how to:

- keep your child from getting diarrhea, and how to treat it if they do
- protect your child against insects, especially mosquitoes (which cause malaria)
- how to avoid accidents which are the major risk to children.

**What vaccines do they need?**

Like you, your children will need to be updated on their regular childhood vaccines that prevent many diseases. These include:

- tetanus, diphtheria, pertussis (DPT)
- hemophilus (Hib)
- pneumonia (pneumococcus)
- chickenpox (varicella)
- polio
- measles, mumps and rubella (MMR)
- hepatitis A
- hepatitis B

Sometimes it is necessary to speed up routine pediatric vaccines to get them all in before travel. Also, some vaccines, like **measles**, may need to be given earlier than if you were staying at home since the children might be exposed to the disease while traveling.

**Could they get diarrhea and what should I do?**

Children, like adults, frequently get diarrhea while traveling. It tends to be more severe for children. Children often have more vomiting along with their diarrhea. Children, like adults, should avoid certain foods (see the diarrhea handout). In addition, if they are **breastfed** before travel you should continue to breastfeed throughout your travels because it will protect the baby from harmful bacteria (germs). If using formula, the water should be made safe before preparing the formula. **Boiled water** is the safest water. With older children who drink milk, make sure it is safe. If you bring milk to a boil and let it cool down it is safe. Boxed milk (“irradiated milk”) is also safe.

- If your child gets diarrhea, you should encourage fluids and continue to let them eat a regular diet as long as they are not vomiting but if they begin to become dehydrated beginning clear fluids as below is recommended.

- If they are vomiting you should change to clear fluid such as oral rehydration fluids like Pedialyte™. These replace fluid and important things lost in the diarrhea. You can take some with you or buy these in most pharmacies in any country in the world. They are made available by the World Health Organization and are called “ORT or ORS”, meaning Oral Rehydration Therapy or Solution. You can simply mix these by direction on the package with clean (boiled) water and give to your child.

- In the child who is vomiting, may be very thirsty and may drink too much very quickly, when fluids are offered causing them to vomit more. It is very important to
give them **small amounts** of fluid **very often**. You should give them a teaspoon of fluid every two to three minutes. If they swallow this you can increase the amount or give it more often. If, while you are increasing the amount of fluid, they vomit you should go back to very small amounts.

- **Diarrhea treatment.** In children older than five years, like adults, bismuth subsalicylate may be used to decrease diarrhea (see diarrhea handout). Younger children should NOT use loperamide. Also, your children should be given an antibiotic that you can take with you that they can take in case of severe diarrhea.

**Do I have to worry about malaria?**

*YES. Malaria* in children, especially those who have never been in an area of malaria can make them very sick. In fact, with the bad type of malaria, children, or anyone who has never had malaria before, can die in less than 12 hours from their first symptoms. Speak to your doctor/nurse (and see malaria handout) about malaria, how to protect your child from mosquito bites and what medication they should take to prevent malaria.

**What is the most likely bad thing to happen to my child while we travel?**

*Injuries and accidents* are the most likely bad things to happen to your child.

- Be very watchful around traffic & roadways, use car seats and seatbelts whenever possible. You likely will need to bring your car seat with you. The safest place in the car for a child is the middle of the back seat.
- Watch you children closely around water because drowning is very common.
- There are things that children may not see in your home that you have to be careful about, such as exposed electrical wires, rat poison, and exposure to animals such as cows and chickens that might carry disease.
- Inspect any area your child might play to be sure it is free from dangerous things.

**Is there a medication I can use if they can’t sleep during the airline flight?**

There are no magic medicines that will make your child sleep during the airline flight. Benedryl (diphenhydramine), which is used for runny noses and allergy symptoms can make kids sleepy if they are ready to sleep. It will not make a wide awake child sleep, but it can be useful if the child is ready to sleep but keeps being awoken by activity around them. If you want to try this, test it at home first as some kids (3 in every 100 kids) will become hyperactive instead of sleepy. This medicine can be purchased at any pharmacy without a prescription (doses are below).

**What about my babies or young child’s ears when they fly?**

About 15 in every 100 babies and young children who fly will have ear pain. This usually occurs when the plane is landing. During descent you can breastfeed, give a baby a bottle or a toddler something to drink as this will usually relieve the pressure in their ears (make their ears pop).
Things to remember while you Travel (Carry with your travel documents):

**Diarrhea:** If your child has more than two times the number of stools he/she regularly has, and they are watery, use the antibiotic you were given by your doctor/nurse. This is especially true if the child has fever, blood in the stool or abdominal pain. If only diarrhea, continue regular diet.

**Vomiting and/or Diarrhea:** Use Oral Rehydration Therapy/Solution. You can buy this at most pharmacies overseas. Mix as directed with clean water. Give small amounts like one teaspoon every 3 to 5 minutes. Increase amount as tolerated. If the child vomits start over with small amounts. Change to regular diet as soon as tolerated.

**Severe illness or unable to give adequate fluids:** Seek good local healthcare. If you have travel insurance they may assist you in finding good care. If your child needs an injection or IV therapy make sure the needle is sterile and has never been used before.

**WASH HANDS OR USE HAND SANITIZING LOTIONS AS FREQUENTLY AS POSSIBLE.**