

Disease Prevention in Nicaragua -

Immunizations recommended at LLU Travel Clinic: hepatitis A, hepatitis B, tetanus (if have not had booster in past 10 years).

Malaria prophylaxis is recommended – this is not a vaccination.

Details at LLU Center for Health Promotion (CHP):

Hepatitis A – 1st dose 4-6 weeks before leaving, 10 days minimum.
2nd dose 6 months later.

Hepatitis B – 1st dose, 2nd dose one month after 1st, 3rd dose six months after 1st.

Tetanus – need booster if have not had with last 10 years

Get prescription at CHP, fill at local pharmacy:

Malaria – Chloroquine, 500 mg., 1 tab per week starting 1 week before departing continue during trip and 4 weeks after (add 5 to total weeks of trip to get total needed)

- Doxycycline (other option) 100 mg once daily starting 1–2 days before travel, then daily during travel, and daily for 4 weeks after leaving the malarious area.

Note: this is a tetracycline-type antibiotic and this length of use may cause side effects associated with long-term antibiotic use.

Preventing insect bites:

Use DEET-containing repellent on exposed skin (20% DEET is probably sufficient)

If outside in the evening, wear lightweight long-sleeved shirt that has been sprayed with pyrethrin

If sleeping in room with no screens on windows or air conditioning, use netting over your bed

If not certain of cleanliness of mattress, sleep in or on a silk sleeping sack

Preventing enteric disorders (Travelers Diarrhea):

The most important things to do when traveling (particularly in a developing country) are to be careful of food and drink and wash your hands. Cooked food should be hot when you eat it. Peelable fruit should be peeled by you before eating. Water should be bottled or from a known safe source. Bottled drinks are safe. Do not use ice cubes as they may have been made from unpurified water. Do not brush your teeth with tap water – rinse

your mouth and toothbrush with bottled water. Water and food are generally safe in hotels, larger restaurants, and at Keiser University. A number of us have eaten food over the years at a couple of small restaurants in San Marcos and several in Managua without problems, however there have been a few instances of people developing severe G.I. distress after eating in local restaurants so caution is still in order. Hands should be washed frequently, particularly before eating. If in doubt about the safety of a certain food source, don't eat it. Chewing Pepto Bismol tablets or taking activated charcoal capsules a couple of times per day can substantially reduce the chance of developing a G.I. disorder. These absorb or deactivate ingested toxins; they are not drugs and don't have the side effect potential of drugs.

Treatment of Travelers Diarrhea:

Traveler's Diarrhea is a common occurrence among North American travelers to Latin America (and many other parts of the world). Even with common sense precautions, some travelers will contract diarrhea with a typical duration of 2-4 days. Bacteria are responsible for the great majority of such cases. Most such episodes are self-limiting and will resolve on their own, but treatment can keep the person more comfortable and speed up the recovery. Treatment of Traveler's Diarrhea may include the following:

1. Fluid replacement to prevent dehydration. In mild cases, a wide variety of liquids can be used, including water, canned juices, carbonated caffeine-free drinks, bouillon, and sports drinks. Severe diarrhea with five or more watery bowel movements per day requires special attention to oral rehydration with safe liquids. In such cases, specially formulated preparations for fluid electrolyte replacement are needed.
2. Antimotility agents can give rapid symptomatic relief. Imodium (loperamide) is an over-the-counter (OTC) medication that is usually effective. Begin this treatment soon after symptoms start for best effectiveness.
3. Pepto Bismol is another OTC medication that gives symptomatic relief. If antibiotics are also being used, they should not be taken at the same time as Pepto Bismol because it can decrease the absorption of the antibiotic.
4. Antibiotics can be taken presumptively because of the high likelihood that bacteria are causing the diarrhea. They are usually effective and can shorten the illness to 1-2 days. Ciprofloxacin (Cipro) is taken at 500 mg 2x per day for 3-4 days is typically recommended for this.

The very best regimen in recent studies was shown to be combining an antibiotic (Cipro) and an antimotility agent (Imodium) and beginning as soon as symptoms develop.