



# ASK DR. DEBBIE...

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## THE “INS AND OUTS” OF TRAVELER’S DIARRHEA...

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Well, yes, what goes in must come out...but hopefully in a way that doesn’t cause the famous dance “the trots,” also known as

Montezuma’s Revenge or Tourista or Traveler’s Diarrhea.

For those of you who travel to those wonderful dive destinations in foreign countries, it’s important to understand the following:

### **Risk Factors to getting Traveler’s Diarrhea**

### **Signs and Symptoms**

### **Possible Complications of Traveler’s Diarrhea**

### **Causes**

### **Treatment**

### **Prevention**

**Risk Factors:** Your risk is primarily determined by your destination. High-risk areas include Central and South America, most of Asia, the Middle East, and Africa. Beyond destination, however, there are certain groups of individuals that are more susceptible to getting traveler’s diarrhea. These include children under age 2 and young adults because their immunity is not as well developed yet. Also, people whose immune systems are

weakened from illness, cancer, or AIDS are more vulnerable to getting traveler’s diarrhea. Additionally, those with diabetes or inflammatory bowel disease are more vulnerable as well. Also those who take stomach acid blockers or antacids

have lowered stomach acid, which is known to destroy certain problematic organisms, and this leaves a greater chance of unwanted bacteria growing in the stomach—and so increased risk of Traveler’s Diarrhea. Lastly, when you travel in the summer months or rainy seasons you are also at greater risk.

**Signs and Symptoms:** Traveler’s diarrhea typically begins abruptly when traveling and often can occur shortly after returning home. When it’s left untreated it usually resolves within 3 to 4 days, but definitely within a week. We all know the common presentation of traveler’s diarrhea, but just for review it includes frequent loose or watery stools of 4 to 5 per day, bloating, abdominal cramping, nausea, and can include vomiting and fever. Sometimes there can be bloody stools, and if this persists for more than a day or two, you should definitely seek medical attention.

**Complications:** The most serious complication is dehydration. Indicators of dehydration include decreased urination, dark urine, dry mouth, crying without tears, very high fever, and feeling hot, but not sweating.

EVERYTHING YOU WANTED TO KNOW ABOUT THE FAMOUS DANCE “THE TROTS,” ALSO KNOWN AS MONTEZUMA’S REVENGE OR TOURISTA OR TRAVELER’S DIARRHEA.

**Causes:** According to the Center for Disease Control, “bacteria are the most common

case of traveler’s diarrhea.” Bacteria are responsible for about 85% of cases. Parasites cause about 10% of the cases, and viruses cause about 5% of the cases. The most common bacteria are enterotoxigenic Escherichia coli (E. coli)

also known as ETEC. The way these bacteria work is that they attach to the lining of the intestine and release toxins that lead to abdominal cramps and diarrhea. There are a number of other bacteria that cause traveler's diarrhea such as Campylobacter, which is more common in Asia and tends to cause bloody diarrhea and high fever. Shigella is also a common cause, and Vibrio cholerae, which is often associated with eating partially cooked or raw seafood, is another pathogen.

**Treatment:** The most important issue is to avoid becoming dehydrated. The best fluid to re-hydrate with is WHO-ORS, oral re-hydrating solution that is common and easy to find in most countries in the pharmacies, grocery stores, or certainly health clinics. If necessary, you can prepare your own solution by mixing together the following:

- ½ teaspoon salt
- ½ teaspoon baking soda
- 3 tablespoons of sugar
- 1 liter of water

Accurate measurement of the above ingredients is essential because incorrect amounts can either be ineffective or harmful!

If the symptoms are severe, such as 3 or more loose stools in 8 hours, then seek medical attention as an antibiotic may be indicated. The typical antibiotics prescribed are ciprofloxacin, or levofloxacin, or azithromycin, and a new antibiotic, rifaximin.

Over the counter treatments that can be tried include Pepto Bismol: 2 tablespoons of liquid or two chewable tablets every 30 minutes for eight doses. Pepto Bismol has both antisecretory and antimicrobial properties. People who are allergic to aspirin, pregnant women, those taking anticoagulant meds, those with kidney disease, and children should not take Pepto Bismol.

There are also over the counter anti-motility medications that can be taken such as Lomotil, but this is not recommended for children under age 2, or in those with bloody stools, unless an antibiotic is being taken along with it.

I recommend talking to your doctor in advance of your travels so that you can take with you any necessary medications for possible traveler's diarrhea as many drugs that can be purchased abroad may be unsafe.

**Prevention:** I like the Mayo Clinic's recommendation, which is: **"Boil it, cook it, peel it, or forget it."** This means eat only well cooked vegetables that are served hot, and fruits and or vegetables that you can

peel such as bananas, avocados, or oranges. Avoid fresh cut fruit salads and grapes and berries. Don't eat food from street vendors. Avoid undercooked meat, fish, and shellfish, buffets, unpasteurized milk and dairy products—including yogurt and ice cream! And, **Don't Drink the Water!** Drink only bottled water that has not had the seal broken. Avoid ice cubes or fruit juices that could have been made with tap water. Don't brush your teeth with tap water—use bottled water. Keep your mouth closed while showering. Order hot beverages such as tea and coffee—they should be steaming hot when served. ***If necessary, boil your own water for 5 to 10 minutes, or bring along a water filter pump, or disinfect the water with iodine or chlorine (available at REI)—follow the instructions on the package of iodine or chlorine for dilution instructions.***

The old saying that "an ounce of prevention outweighs a pound of cure" is true. I can tell you from having lived in Guadalajara, Mexico for 4 years. I suffered from diarrhea several times there. My most memorable time for that was when I went one evening along with 4 other students to a taco stand called Venados. Our plan was to see who could survive tasting their hot chili sauce without crying. We ordered tacos al pastor, which is chopped beef with onions, and cilantro. While we were sitting at a lovely outdoor table a car drove up and some workers opened up the trunk and took out a huge supply of meat and walked it into the restaurant. Then the same crew returned and put two huge bags of trash into the trunk! We knew we were in for trouble when we witnessed this little scenario of meat and trash being transported in the same trunk. And sure enough, about 3 hours later we all were sicker than we could have imagined. I felt like a tube that was going to evacuate itself from whichever end seemed easier at the time. There were major fights for the one bathroom shared by four of us—pounding on the doors begging for our turns while puking our brains out. There were times I'd have welcomed an IV to get hydrated. We drank Pepto Bismol like a coveted cocktail, chewed lomotil, and prayed that it would be over soon. By morning we felt weak, dehydrated, unattractive, and nauseated. Someone got Gatorade for us and we thought we were in heaven!

I hope that none of you have to suffer through traveler's diarrhea. So do pay attention to the "Ins and Outs."

Happy Diving!

Yours Truly,

*Debbie Hill-Titus, MD*