

## **DEFINITION OF TRAVELERS' DIARRHEA (TD)**

Travelers' diarrhea (TD) is a digestive tract disorder that commonly causes loose stools and abdominal cramps. It is caused by eating contaminated food or drinking contaminated water. Fortunately, TD usually is not serious – it is just unpleasant.

TD is the most common illness affecting travelers. Each year between 20%-50% of international travelers, an estimated 10 million persons, develop diarrhea. The onset of TD usually occurs within the first week of travel but may occur at any time while traveling, and even after return home. The most important determinant of risk is the traveler's destination. High-risk destinations are the developing countries of Latin America, Africa, the Middle East, and Asia.

## **CAUSES, INCIDENCES, AND RISK FACTORS**

Most TD cases begin abruptly. The illness usually results in increased frequency, volume, and weight of stool. Altered stool consistency is also common. Typically, a traveler experiences four to five loose or watery bowel movements each day. Most cases are benign and resolve in 1-2 days without treatment. TD is rarely life-threatening. The natural history of TD is that 90% of cases resolve within 1 week, and 98% resolve within 1 month.

Persons at particular high-risk include young adults, immunosuppressed persons, persons with inflammatory-bowel disease or diabetes, and persons taking H-2 blockers or antacids. Attack rates are similar for men and women. The primary source of infection is ingestion of fecally contaminated food or water.

## **SYMPTOMS**

Commonly associated symptoms include:

- Nausea
- Vomiting
- Diarrhea
- Abdominal Cramping
- Bloating
- Fever
- Urgency
- Malaise

**PREVENTION: Travelers can minimize their risk for TD by practicing the following effective preventative measures:**

- › **Avoid eating foods or drinking beverages purchased from street vendors or other establishments where unhygienic conditions are present**
- › **Avoid eating raw or undercooked meat and seafood**
- › **Avoid eating raw fruits (e.g., oranges, bananas, avocados) and vegetables unless the traveler peels them.**

**If handled properly, well-cooked and packaged foods are usually safe. Tap water, ice, unpasteurized milk, and dairy products are associated with increased risk for TD. Safe beverages**

**include bottled carbonated beverages, hot tea or coffee, beer, wine, and water boiled or appropriately treated with iodine or chlorine.**

**The “rule of thumb” for prevention of TD, when at a restaurant or roadside eatery, is to order food that is fast moving and freshly cooked (baked, roasted, fried, sautéed, boiled, or steamed). Avoid consuming any food that has been lying around, drinking any fluids that are not from a reliably sealed container, or eating uncooked fruits and vegetables, unless peeled by the traveler. A hot beverage, even if it does not appeal to the traveler, is safer than a freshly made fruit juice or a cold coffee.**

## **TREATMENT**

TD usually is a self-limited disorder and often resolves without specific treatment; however, oral rehydration is often beneficial to replace lost fluids and electrolytes. Clear liquids are routinely recommended for adults. Travelers who develop three or more loose stools in an 8-hour period---especially if associated with nausea, vomiting, abdominal cramps, fever, or blood in stools---may benefit from antimicrobial therapy. Antibiotics usually are given for 3-5 days. Currently, fluoroquinolones and anti-protozoals are considered the drugs of choice.

Acute food poisoning may result in repeated vomiting, nausea, severe abdominal discomfort and watery or explosive diarrhea for about 24 to 48 hours. While this is usually self-limiting, the person may need support from others for supply of rehydrating fluids or in severe cases, hospitalization.

If diarrhea persists despite therapy, travelers should be evaluated by a doctor and treated for a possible parasitic infection.