

Travelers' Diarrhea

Travelers' diarrhea (TD) is one of the most predictable travel-related illnesses and is most common in young adult travelers. Although it is still recommended, studies have found that people who follow traditional recommendations of "boil it, cook it, peel it or forget it" may still become ill. Most likely this is due to poor hygiene in local restaurants. Taking medicines that reduce stomach acidity can also increase risk.

About 80-90% of travelers' diarrhea is bacterial in origin. Viruses may account for about 5-15% of symptoms. Symptoms present with sudden onset of bothersome symptoms that range from mild cramps and urgent loose stools to severe abdominal pain, fever, bloody diarrhea, and sometimes vomiting. Untreated bacterial diarrhea can last 3-7 days. Viral diarrhea can last about 2-3 days.

Prevention of Travelers' Diarrhea

Food and Beverage precautions are still recommended to minimize risk and decrease the number of organisms ingested and reducing the severity of TD.

Probiotics/Prebiotics

Use of these agents have been inconclusive in studies to prevent TD

Antibiotics

Not recommended for routine prevention of TD in healthy travelers.

Medications to Prevent TD

Bismuth Subsalicylate 262mg Chewable Tabs (Pepto-Bismol®)

When to take Pepto Bismol®

Pepto-Bismol® can be used to prevent travelers' diarrhea or treat mild diarrhea

How to take Pepto Bismol®

Prevention: 2 chewable tablets 4 times per day (with meals and at bedtime). Treatment: 2 chewable tablets every 30 to 60 minutes as needed up to 8 doses/24 hours.

When not to take Pepto Bismol®

- Pregnancy
- Breastfeeding
- If you have an allergy to aspirin or other salicylates
- Renal insufficiency (kidney problems)
- Gout
- Patients taking blood thinners or with bleeding disorders



Self Treatment based on Severity of Travelers' Diarrhea

Mild: loose or liquid stools that are tolerable, not distressing, and do not interfere with planned activities.

- Antibiotic not recommended.
- May use bismuth subsalicylate or Imodium® (for maximum of 48 hours) if necessary for comfort during sightseeing or travel and if not contraindicated.

Moderate: loose or liquid stools with cramps or nausea that interfere with planned activities.

- May take Imodium® (for a maximum of 48 hours) by itself or with antibiotic, if necessary, for comfort during sightseeing or travel and if not contraindicated.
- Antibiotics may be used, but use is not encouraged due to potential for inducing resistant bacteria.

Severe: loose or liquid stools with cramps or nausea that are incapacitating or prevent planned activities. All dysentery (blood or pus in the stools) is considered severe.

- Use an antibiotic
- Stay in room and use toilet as necessary.
- May use Imodium® (for a maximum of 48 hours) if necessary for comfort unless dysentery is present (blood or pus in the stools).
- Pay attention to rehydration.
- Seek medical attention if symptoms do not rapidly improve.

Fluid and Dietary Management

Severe dehydration is unusual in healthy adult travelers unless vomiting is prolonged. Mild dehydration can be corrected with any fluid; use only sealed beverages and/or water that is bottled/boiled. Overly sweet drinks such as sodas can worsen diarrhea, so may be best to avoid. Oral rehydration solution (ORS) are electrolyte salts that are designed to be mixed with purified water and are rapidly absorbed from the intestine. Many stores and pharmacies carry ORS packets or you can bring your own.

Non-Antibiotic Treatment for Diarrhea

Loperamide (Imodium®)

When to take Loperamide (Imodium®)

Imodium is an over the counter antimotility agent that can be used for treatment of mild to moderate diarrhea. It can be used *with antibiotics in the treatment of severe diarrhea, only if there is no fever or bloody stool.*

How to take Loperamide

2 tabs (4 mg) after first loose stool, followed by 2 mg after each subsequent stool for a maximum dose of 8mg/day with over the counter use and a duration of therapy \leq 48 hours

If symptoms do not improve while on imodium or worsen, start antibiotic therapy.

When not to take Loperamide

You are allergic to loperamide (Imodium®)

Side Effects

Constipation, drowsiness, dizziness

Taking higher than the recommended dose of loperamide can cause cardiac adverse events that may result in death in significant overdoses.

Concomitant use of cimetidine, clarithromycin, erythromycin, gemfibrozil, itraconazole, ketoconazole, quinidine, quinine, ranitidine, and ritonavir along with *higher than recommended doses of loperamide may further increase these risks.*



Colonization with resistant organisms

Traveling abroad to certain countries, such as destinations in South Asia can increase colonization with resistant organisms. Having travelers' diarrhea further increases this risk. Taking imodium further increases this risk. Finally taking antibiotics further increases the risk. However, use of antibiotics for severe diarrhea could turn a 3-4 day illness into a 1-day illness.

Need for Medical Assistance

Persons who do not rapidly respond to self-treatment should seek medical assistance. Dehydration with inability to keep down fluids, bloody stools and severe symptoms such as intense cramps, fever and chills may require local medical assistance. IAMAT and the local consulate can help with finding appropriate facilities

Antibiotic Treatment for Diarrhea

Azithromycin 500MG

When to take Azithromycin

Self-treatment of moderate to severe travelers' diarrhea
Treatment of moderate diarrhea can increase the risk of colonization with resistant organisms and is not recommended unless necessary for comfort during sightseeing or travel. Azithromycin should be used for treatment of severe diarrhea

How to take Azithromycin 500mg

1-2 tablets at once by mouth with food (2 tablets can cause nausea, so it's OK to split the dose); may take one tab daily for two more days if diarrhea persists, or fever/bloody stools are present.

When not to take Azithromycin

You are allergic to azithromycin (ex. Erythromycin, Zithromax®, Biaxin®, Clarithromycin or any macrolide antibiotic)

Side Effects

Nausea, vomiting and loose stools are side effects. Can split the dose to twice a day with food if you are nauseated. Do not take if you have cardiac problems (QT interval prolongation, low blood levels of potassium or magnesium, a slower than normal heart rate, or if you use certain drugs used to treat abnormal heart rhythms or arrhythmias). Potential drug interactions with antidepressants and other medications; risk is low given short duration of antibiotic; ask your pharmacist.

Ciprofloxacin 500MG (Cipro®)

When to take Ciprofloxacin

Self-treatment of severe travelers' diarrhea only if you cannot use azithromycin, which is drug of choice for TD, especially in South Asia.

How to take Ciprofloxacin

1 ½ tablets (750mg) at once by mouth; may take one tablet twice daily for 4 more doses if diarrhea persists. Take with food but avoid dairy.

When not to take Ciprofloxacin

You are allergic to quinolones (ex. Levaquin®, Cipro®, ciprofloxacin, levofloxacin) Pregnant. Taking tizanidine (Zanaflex®)

Side Effects

Tendonitis and tendon rupture, peripheral neuropathy, central nervous system effects, QT prolongation, and aortic dissection or aneurysm. Potential drug interactions with antidepressants and other medications; risk is low given short duration of antibiotic; ask your pharmacist.

