

TRAVELERS' DIARRHEA

Patient Information Fact Sheet

What is travelers' diarrhea?

Travelers' diarrhea is, as the name suggests, a diarrheal condition most often experienced while traveling. It is more likely to occur in less developed countries in Africa, Asia and Central and South America, but can also occur in developed countries. In most cases, travelers' diarrhea is fairly mild and does not last very long. It is not usually severe or life-threatening. However, it can be dangerous in very young children or babies who may become dehydrated within a few hours if the diarrhea is severe, especially if the diarrhea is accompanied by vomiting. It may also be dangerous in the elderly or in people already weakened by another illness.

In most cases the diarrhea resolves without treatment. However, in more serious cases where the diarrhea is caused by infection with a specific organism treatment may be required. "Gastroenteritis" is the term used to describe any infections that cause diarrhea.

For most healthy travelers, diarrhea is a nuisance and uncomfortable, but is rarely a serious health problem. However, for malnourished children in developing countries diarrhea can often be life-threatening and many die each year as a result of severe dehydration.

What are the symptoms of travelers' diarrhea?

In most cases, the diarrhea, often accompanied by gripping abdominal pain, will last 1 or 2 days. If it continues for more than 3 days, or for more than 1 day in a baby, seek medical attention. If there is blood in the diarrhea or a high temperature (fever) is also present, the cause could be more serious.

What different types of organisms are responsible for travelers' diarrhea?

In around 40% of cases, travelers' diarrhea is caused by a bacterium known as *Escherichia coli* (*E. coli*). Most cases are mild and last only a few days. However, certain strains of the bacterium, such as *E. coli* O157: H, can potentially cause a very serious, even life-threatening infection. Symptoms include severe, bloody diarrhea and abdominal cramps. This can be followed by serious organ system damage such as kidney failure. You may be exposed to *E. coli* from contaminated water or food — especially raw vegetables and undercooked ground beef. While healthy adults usually recover from an *E. coli* O157:H7 infection within a week, more vulnerable populations, such as young children and older adults, can develop a life-threatening form of kidney failure called hemolytic uremic syndrome (HUS).



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There are many other causes of diarrhea, which tend to occur in less developed countries. *Shigella* is another bacterium, which is identified as the cause in around 15% of diarrheal illnesses. Initially, the infection causes profuse, watery diarrhea and a high temperature. The symptoms then develop into loose, frequent stools containing blood and mucus that can last for up to a month. The illness can be very unpleasant, particularly for children, and requires treatment with antibiotics.

Salmonella is also a bacterium that is responsible for about 10% of all cases of diarrhea. The symptoms usually last about a week and are limited to mild to moderate diarrhea that contain mucus but rarely any blood.

Typhoid is similar to salmonella infection and is a serious illness that can be fatal if not treated. *Rotaviruses* account for another 10% of cases. These can cause more severe diarrhea in children than in adults.

Giardia lamblia is an intestinal parasite that accounts for many of the cases of persistent diarrhea brought home by travelers. The early phase can vary from a mild condition to a very unpleasant, profuse, watery diarrhea. If untreated, it can lead to vitamin deficiencies. The second, chronic phase can persist for months or even years and is characterized by bulky, extremely foul-smelling, pale grey stools due to unabsorbed food.

Other parasites that may cause diarrhea include *Entamoeba histolytica*, which causes a diarrheal condition known as amoebic dysentery, and *Cryptosporidium*, which is increasingly a cause of travelers' diarrhea.

Cholera is not as dangerous as is commonly thought. Only around 2% to 5% of people infected will develop severe diarrhea. Most people (over 75%) will have no symptoms at all. Dehydration from diarrhea is the main cause for concern with this illness.

How is travelers' diarrhea treated?

Most forms of diarrhea will resolve in a few days without the use of antibiotics. Antibiotics used in a viral infection are of no use and may do harm as they kill off the "good" bacteria normally living in the gut, making it easier for other infections to take hold. Antibiotics can also have the side effect of causing diarrhea.

Medications to slow down the movement of food through the intestine may be given. These include **loperamide** (Imodium) and **diphenoxylate with atropine** (Lomotil).

Rehydration is very important. Electrolyte solutions replace fluid and salts that are lost during episodes of diarrhea. Plenty of clear liquids such as water, juices and soft drinks should also be consumed.



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There are many different antibiotics that can be prescribed depending on the type of bacteria causing the diarrhea. Ideally, these should be prescribed once a definite diagnosis has been made, usually with the help of a stool sample test and culture. However, if a person is traveling to a remote place where medical help may not be easily available, antibiotics may be given in advance to be taken if necessary. In this case you would be given some criteria to aid you in deciding whether or not you need to take them if diarrhea occurs.

What can be done to prevent travelers' diarrhea?

- Be careful what you eat and drink when you are traveling. Freshly boiled food, eg, rice and sweet corn is safe to eat; food that may have been cooked a while before and left standing is not.
- Avoid salads, shellfish, crab and prawns, unpeelable fruit and vegetables. Fruit that can be peeled, such as, avocados, bananas, citrus fruits and melons, is safe to eat.
- Do not have ice in drinks and drink only bottled water. Do not use tap water, even for brushing teeth.
- Wash your hands frequently, particularly before eating.

Further information

Centers for Disease Control and Prevention: <http://wwwnc.cdc.gov/travel/yellowbook/2010/chapter-2/travelers-diarrhea.aspx>

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