

Diarrhea – general information

Nepal is one of the countries with highest risk for gastrointestinal illness in the world.

Approximately one third of patients who are seen at CIWEC Clinic do so, for diarrhea. CIWEC Clinic has performed extensive research on diarrheal diseases in travellers and expatriates and what is said below is borne out by the research that has been performed at this clinic.

What causes diarrhea?

Bacterial infections - Most cases (approximately 80%) of diarrhea are due to bacterial infections. It is characterized by the abrupt onset of uncomfortable diarrhea and cramps. Diarrhea often begins in the middle of the night or early morning. Nausea, vomiting and fever can occur, but are not necessary to make the diagnosis. Bacterial diarrhea can resolve spontaneously without medication but the illness has the potential to last for up to 2 weeks and cause problems like dehydration, fatigue and loss of time from work. Replacement of lost fluids is very important in preventing dehydration. The length of this illness can be dramatically shortened by antibiotic therapy.

Giardia - A parasite that causes a relatively low-grade, chronic diarrhea associated with stomach rumbling, gas, abdominal cramping and 3-5 loose stools per day. It can sometimes cause a lot of watery diarrhea. Fever almost never occurs with giardia. Sulfurous smelling burps and farts, sometimes seen in Giardia infections, are equally common in bacterial infections and therefore not a reliable finding. Giardia is responsible for causing 11% of diarrhea diagnosis in travellers and expatriates.

Amebic Diarrhea - This is a very rare cause of diarrhea (approx 1% only). Usual presentation seems to be chronic diarrhea alternating with constipation. Fatigue and weight loss are common complaints as the illness persists. Can progress (rarely) to mucousy and bloody stools, which is then referred to as “amebic dysentery.”

Cyclospora - A protozoan parasite that causes infections from May to August each year, with most of the cases occurring in June and July. Most of the time, the disease starts with an abrupt onset of diarrhea and may be accompanied by low grade fever, nausea or vomiting. The disease then has a waxing and waning course with profound fatigue, loss of appetite, and diarrhea that comes and goes. Untreated, the illness can last for several weeks.

Worms - An intestinal parasites that almost never causes diarrhea but may sometimes, cause mild abdominal pain. Hookworm can cause anemia. Worms are seen more commonly in children. Occasionally, an adult round worm which looks like an earthworm gets passed with stool and is a source of great anxiety to parents.

August 2008

Symptomatic Treatment of Diarrhea

When diarrhea or vomiting occurs, it is important to replace fluid and electrolytes to prevent dehydration. This can be done fairly easily with an electrolyte solution mixed in a liter of boiled and filtered water or one liter of mineral water. Some commercially available products are Nava Jeevan and Jeevan Jal. Other fluids that can supplement the oral rehydration solution are: coca-cola/sprite without the bubbles, herbal teas, weak teas, clear soup, Tang solution, Gatorade. Alcohol and heavily caffeinated products should be avoided. It is important to urge young children with diarrhea to drink liquids frequently since they can become dehydrated quickly from seemingly small fluid losses. Adults should drink 3 liters or more fluids per day depending on the amount lost as diarrhea or vomiting.

Bowel paralyzers, such as loperamide, can give temporary relief of abdominal cramps and diarrhea, but do not shorten the illness or treat the cause. The use of bowel paralyzers is justified, however, when facing a long bus or plane trip, or when you are trying to continue to trek.

Treatment with loperamide: Take 2 pills to start, then 1 pill after each loose stool (not to exceed 8 pills a day) until the diarrhea stops. Do not use loperamide if you have bloody diarrhea unless you take an antibiotic with it.

Water Purification and Food Precautions

All water in Nepal must be assumed to be contaminated. Water can be purified by bringing it to a boil. An alternative to boiling water is to add liquid iodine (Lugol's solution) at the rate of 4-6 drops per liter. The water is safe to drink after 20-30 minutes. Cold water takes longer to purify than warmer water. Iodine is also available in tablet form. The iodine taste and odor can be completely removed by adding a small amount (50 mg or so) of vitamin C *after* the water is purified. Hotel and restaurant water that is said to be boiled and filtered may not always be. Bottled water in Nepal is reasonably safe to drink.

Some restaurants soak their salad vegetables in iodine or other disinfectants which render them safe to eat. Otherwise, avoid any raw vegetable or fruit that cannot be peeled. Foods that are cooked once during the day, and then vaguely reheated before serving, such as quiche and lasagne are high risk foods because bacteria can multiply in them during the day. Blended fruit and yoghurt drinks ("Lassis") were found to be highly associated with diarrhea and should be avoided.

Remember, you cannot completely control what you eat, and no matter how careful you are, you can still get ill. Take reasonable precautions, as suggested, then relax and enjoy your food.

Stool Examination at CIWEC Clinic

We pride ourselves on our stool microscopy results. You might wonder what is special about this simple test. The simple test is not so simple in that each stool sample is looked at in 2 ways at the clinic. A fresh sample of stool is put on a slide and looked at under the microscope. Secondly, an equal volume of formalin ether is mixed with the stool and spun in a centrifuge. The second method allows digestion of fecal material and parasites, if there are any they show up well when looked under the microscope. This makes the stool test more sensitive so that parasites can be found easier.

Remember that stool examination is a guide to therapy but a negative test result does not mean that you do not have a problem.