

Prevention of TRAVELLER'S DIARRHOEA

Many intestinal infections are attributable to infections through food, water, objects or hands. With a little care most of these illnesses can be prevented. **Hepatitis A, typhoid fever, polio and cholera** still occur in countries with poor hygiene, but these diseases are easily prevented.

However, the chance is rather large that you will still contract a light and/or non-dangerous form of **traveller's diarrhoea**. Traveller's diarrhoea almost always spontaneously clears up after a few days, but can nevertheless be irritating. Persons taking gastric acid inhibitor or having reduced/stopped production of gastric acid due to a surgical operation are more susceptible to serious diarrhoea.

In the first place measures must be taken against dehydration. Likewise, treatment of the symptoms must be considered in order to reduce the number of bowel movements and relieve other symptoms such as fever, vomiting and stomach cramps. Sometimes a more serious form of diarrhoea occurs, for which specific treatment with antibiotics is indicated or where hospitalisation or fluid replacement appears unavoidable.

It takes only a few basic preventive measures to make your trip a success:

Total prevention of traveller's diarrhoea is impossible and it is obvious that preventive measures can seldom be strictly followed at all times. But following preventive measures do significantly reduce the risk of contracting serious diarrhoea:

- Before cooking, eating and after using the lavatory: **hand washing with water and soap or disinfectant alcoholic gels** (hydro-alcoholic solutions)
- Remember "the law" about safe food: **Cook it, boil it, peel it or forget it!**
- **Avoid** (if possible) :
 - uncooked vegetables and cold salads, uncooked or raw food in general;
 - fruit that cannot be peeled by yourself before eating; damaged fruit;
 - unpasteurized or unboiled dairy products or food based on unpasteurized or unboiled dairy products (pudding, ice cream, coffee cream, etc);
 - dishes based on raw or insufficiently boiled eggs;
 - raw or insufficiently cooked fish, and especially seafood such as oysters;
 - raw or insufficiently cooked meat;
 - boiled dishes that are left for hours on room temperature (only eat food that is thoroughly cooked and still warm);
 - "local meals" which do not smell fresh; contaminated food can however look, smell and taste perfectly normal
 - ice-cream from vendors (industrially prepared and factory packed ice-cream from the freezer is probably safe).
- The place where you eat is also important. A meal taken from a stall presents a greater risk than a meal taken in a restaurant. Avoid restaurants with a lot of flies and other insects.
- Avoid tap water and ice-cubes.
- **Bottled water and soft drinks are safe.** Watch out for bottle caps that have already been used.
- In some countries it is common to add unboiled cold water to hot tea or coffee before serving; this should be avoided!

It is very important to disinfect drinking-water on adventure trips:

Total sterilisation of drinking water is impossible.

The following measures considerably reduce the contamination risk:

Boiling the water is very effective.

A good alternative is chemical disinfection with chlorine drops (e.g. Hadex[®], Drinkwell chloor[®]; available in sport shops specialized in outdoor activities) or chlorine tablets (Micropur Forte[®] = chlorine and silver tablets; available at the pharmacy). Their effect can be improved by first filtering unclear water (a coffee filter or clean handkerchief can be used). Silver salts (Micropur Classic[®]) are not very suitable to disinfect water, but they keep disinfected water germ-free for a long time.

Preventive use of antibiotics and other medications is not advisable!

A prompt self-treatment is an excellent alternative.

How to treat diarrhoea?

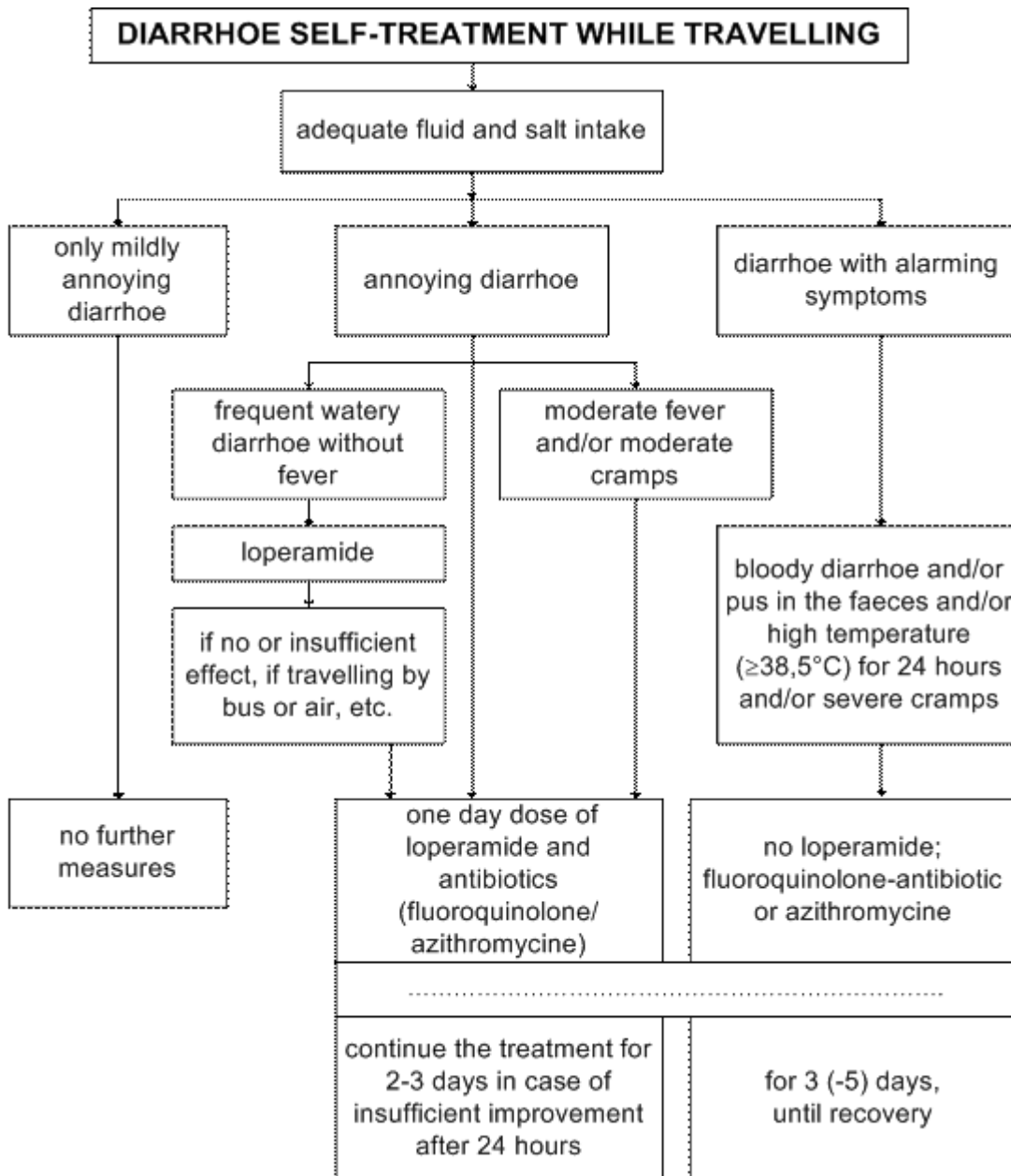
- It is extremely important **to consume sufficient liquid and salt in order to prevent dehydration**. You can do this by taking salt solutions, but tea with lemon, broth, soft drinks and fruit juice, supplemented with salt crackers are tastier.
Commercial salt products are available on the market (**ORS-solution**).
- Taking an anti-diarrhoea preparation (**loperamide**, e.g. Imodium[®]) can greatly reduce the number of bowel movements, with a considerable reduction of the complaints as a result. Loperamide may only be used by adults and older children and only *for treating ordinary watery diarrhoea*: 1 capsule or instant tablet after every loose movement up to a maximum of 4 per day. (One has to stop the administration as soon as the faeces become more solid or when no stools have passed for 12 hours).
- Antibiotics are indicated (**see schedule**) in the following circumstances:
 1. If blood, mucus or pus are present in the stools (start immediately)
 2. In persons suffering from primary or secondary immunosuppression and in people who don't produce enough stomach acid (e.g. patients on proton pump inhibitors or acid antagonists) (start immediately)
 3. If after 24 to 48 hours, there is no sign of improvement, or if the diarrhoea is accompanied by fever (above 38.5 C) or severe abdominal cramps, or if there are more than six stools per 24 hours.
 4. Or if because of travel circumstances a quicker solution is desirable.

Appropriate antibiotics (only on doctor's prescription) for adults are :

- 1) Fluoroquinolone-antibiotic: ciprofloxacin 500 generic/Ciproxine 500[®],
 - 1 tablet in the morning and 1 tablet at night for *1 to 3 days* for uncomplicated watery diarrhoea (in case of pure watery diarrhoea, the treatment may be stopped as soon as the symptoms have disappeared)
 - or *3 to 5 days* in case of serious symptoms (see schedule).
 - Avoid sunlight.
 - Fluoroquinolones are strictly contraindicated during pregnancy.
- 2) Zitromax[®] (azithromycin):
 - 500 mg per day for *1-3 days*, (1 day treatment suffices mostly).
 - Allowed during pregnancy.

Loperamide and an appropriate antibiotic (either ciprofloxacin or azithromycin or both depending upon the destination) are provided for you in the mission's medical emergency kit.

Schematic:



This scheme is **only** for emergency use while on mission.
Do **not** use it when you get back home, but always consult your doctor!