# HEALTh HAZARDS OF INTERNATIONAL TRAVEL

Pages with reference to book, From 333 To 336

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Many health hazards to travellers, visiting areas of the world not familiar to them, can be avoided by simple precautions and preventive measures recommended by WHO.

Certain stresses such as crowding, disturbed pattern of sleep and wakefulness cycles, disruption of usual eating and drinking patterns over long periods may lower resistance to disease which can lead to nausea, indigestion, fatigue or insomnia. It can be prevented by simply taking care not to become overtired. Simple drugs such as aspirin for aches and pains and sleep inducing drugs to get over time difference and regulate sleep pattern may be helpful.

Evironmental changes like heat and cold can be directly or indirectly responsible for some diseases. Excessive heat and humidity may lead to heat exhaustion, heat stroke or hyperthermia. Deimatophytes such as tinea pedes or athletes foot are often exacerbated by warm and humid conditions Ultravoilet rays or the sun can cause sunburn especially in the light-skinned persons. Excessive cold may affect inadequately clad and, particularly, the elderly persons and can lead to hypothermia and frost-bite of exposed parts. These hazards can be prevented by avoiding excessive cold, heat and humidity even without allowing time to acclimatize.

Breathing and swallowing dust as a result of travelling on unpaved roads or in arid areas may be followed by nausea or malaise and cause increased susceptibility to upper respiratory tract infections. High altitudes may initially lead to insomnia and cause distress to patients with cardiac and pulmonary diseases.

Fresh water streams, canals, lakes in tropical areas may be infested with larvae that penetrate the skin, causing Schistosomiasis. Fatal prihary amebic meningoencephalitis may occur following swimming in warm dirty pools. Water showers and some airconditioning systems, especially in hotels, may transmit pneumonic illness due to Regionalla, which can be prevented by chlorination of hotel water supplies.

Food and drinks are the common sources for the transmission of cholera, amoebic and badillary dysentries,

Giardiasis, guinea-worm and other helminthic infections, viral hepatitis A, epidemic hepatitis non-A non-B, typhoid and paratyphoid fevers and other salmonellosis. At certain seasons, various species of even well cooked fish and shellfish contain poisonous biotoxins. To avoid these hazards, closer attention to personal hygiene should be paid, e.g., hand washing with soap and water, eating and drinking only safe foods and liquids. Unpasteurized milk should be boiled before drinking. Unless the purity of drinking water is confirmed it should be boiled or chlorinated. Intestopan or Imodium for stomach upsets commonly caused by changes in food and water can be helpful.

TABLE

Certain Food-Borne and Water-Borne Diseases, Their Mode of Transmission and Geographical Occurrence.

| Disease | Mode of transmission | Geographical occurrence |
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| 1 | 2 | 3 |
| VIRAL DISEASES | | |
| Junin and Machupo haemorrhagic fevers | Ingestion of food contaminated by rodent excreta | Rural Argentina and Bolivia |
| Some enterovirus infections (excluding poliomyelitis) | Ingestion of faecally contaminated food or water | Worldwide |
| Q fever | Raw milk from infected animals | Worldwide as a zoonosis |
| Rotavirus diarrhoea | Ingestion of faecally contaminated food or water | Worldwide |
| Tick-borne encephalitis | From tick bites, raw milk and milk products in endemic areas | USSR and eastern Europe |
| Viral gastroenteritis (due to Norwalk-like agents) | Ingestion of faecally contaminated food or water | Not fully defined but probably worldwide |
| Viral hepatitis A, epidemic hepatitis non-A, non-B | Ingestion of faecally contaminated food or water | Worldwide with higher incidence in areas of poor sanitation |
| BACTERIAL DISEASES | | |
| Bacillus cereus food infection | Ingestion of cereals, usually rice, and cereal products left unrefrigerated after cooking | Probably worldwide commonly reported in USSR, and south eastern European countries |
| Botulism | An intoxication from ingestion of contaminated food-usually preserved | Worldwide |
| Brucellosis (undulant fever) | Ingestion of untreated milk or milk products | Worldwide but more prevalent in northern and southern Africa, parts of middle and southern America, middle and western south Asia, and south-eastern and south-western Europe |
| Campylobacter enteritis | Ingestion of foods of animal origin or faecally contaminated, particularly milk and untreated water | Worldwide; probably a zoonosis |
| Cholera | Ingestion of faecally contaminated water or food | Africa and Asia |
| Clostridium perfringens food-borne infection | Ingestion of faecally or soil-contaminated food left unrefrigerated after cooking | Worldwide |
| Escherichia coli (enterotoxigenic) diarrhoea | Ingestion of faecally contaminated food or water | Worldwide, but highest incidence in countries with poor sanitation |
| Legionnaires disease | Infected water supplies and some air-conditioning systems | Probably worldwide |
| Leptospirosis (Weil's disease or slime fever) | Working or swimming in water contaminated with urine of animals. There is penetration of skin or mucous membrane by Leptospira | Worldwide zoonosis |

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| Melioidosis | Contact with contaminated soil through skin wounds, or ingestion of contaminated water | Zoonosis of mainland, middle and southern America, Asia, and Oceania |
| Salmonellosis, other than the typhoid fevers | Ingestion of foods of infected animal origin (including eggs) or faecally contaminated food | Worldwide; primarily a zoonosis |
| Shigellosis (bacillary dysentery) | Ingestion of faecally contaminated food or water | Worldwide |
| Staphylococcal food poisoning | Ingestion of infected foods particularly those left unrefrigerated after preparation | Worldwide |
| Streptococcal infections (streptococcal sore throat) | Ingestion of contaminated foods including milk | Worldwide |
| Tuberculosis (bovine) | Ingestion of infected milk and milk products | Worldwide, but rare in areas of control of the disease in bovines |
| Typhoid and paratyphoid (enteric) fevers | Ingestion of faecally contaminated food or water | Worldwide, with higher incidence in areas of poor sanitation |
| Vibrio parahaemolyticus infection | Ingestion of contaminated raw or inadequately cooked seafood | Probably worldwide, but commonest in North America, east Asia, and middle and eastern south Asia |
| Yersinia enterocolitica infection | Not fully defined, but probably due to ingestion of faecally contaminated food or water | Highest incidence in temperate climates; probably mainly a zoonosis |
| **PROTOZOAL INFECTIONS** | | |
| Amoebic dysentery | Ingestion of faecally contaminated food or water, especially if unfiltered | Worldwide; higher incidence in areas of poor sanitation |
| Amoebic meningoencephalitis, primary | Contamination of nasopharyn during swimming in warm dirty pools, and probably from other water sources | Not fully defined; already reported from Africa, North America, middle south Asia, Australasia, and Europe |
| Balantidiasis or balantidial dysentery | Ingestion of faecally contaminated food or water | Worldwide; associated with pigs and poor sanitation |
| Giardiasis | Ingestion of faecally contaminated water | Worldwide; possibly a zoonosis |
| **HELMINTHIC INFECTIONS** | | |
| Angiostrongyliasis (eosinophilic meningoencephalitis) | Ingestion of raw or insufficiently cooked land planaria and freshwater fish, and raw salads | Eastern south Asia, Oceania; also reported from Japan and Hawaii (USA) |
| Anisakis infection (herring worm disease) | Ingestion of raw fish, particularly herrings | Northern Europe and Japan |
| Ascariasis (roundworm infection) | Ingestion of faecally contaminated soil on salads and other food eaten raw | Worldwide, but highest incidence in moist warm climates |
| Bilharziasis see Schistosomiasis | | |
| Capillariasis | Intestinal form probably due to ingestion of raw or undercooked freshwater fish; hepatic form (liver worm infection) from ingestion of raw food or water contaminated with embryonated eggs by rodents | Intestinal form, eastern south Asia; hepatic form widespread but rare in man |
| Clonorchiasis (oriental liver fluke disease) | Ingestion of raw or undercooked freshwater fish containing encysted larvae | East Asia and Indo-china peninsula |
| Diphyllobothriasis fish tapeworm (infection) | In the northern hemisphere, ingestion of raw or undercooked freshwater fish; in the Pacific, ingestion of marine fish | North America, Europe, including USSR, and the Pacific coast of South America |

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| Dracontiasis (guinea-worm infection) | Ingestion of unfiltered water | Sub-Saharan Africa and south Asia; rare in North America (as a zoonosis) |
| Echinococcosis (hydatid disease) | Ingestion of infected eggs in food or water contaminated by faeces of animals | North Africa, parts of temperate and tropical South America, western south Asia and south-western Europe |
| Enterobiasis (pinworm infection) | Ingestion of faecally contaminated food (or direct ano-oral transfer) | Worldwide; incidence less in warm climates |
| Fascioliasis (liver fluke disease) | Ingestion of green-leafed salads, watercress grown in infected waterlogged pastures | Africa, America, eastern south Asia, and Europe |
| Fasciolopsiasis (giant intestinal fluke infection) | Ingestion of raw aquatic plants, particularly the water chestnut | East Asia, and eastern and middle south Asia |
| Gnathostomiasis | Ingestion of raw or undercooked or processed fresh | East Asia and eastern south Asia |
| Opisthorchiasis (cat liver fluke infection) | Ingestion of raw or undercooked freshwater fish | India, Lao People's Democratic Republic, Thailand, south-eastern Europe, and Siberia (USSR) |
| Paragonimiasis (oriental lung fluke infection) | Ingestion of raw or undercooked freshwater crabs or crayfish | Western Africa, Pacific coast of middle and southern America, East Asia and eastern south Asia, Nepal, and Oceania |
| Schistosomiasis (bilharziasis) | Penetration by cercarial larvae of human skin while washing, wading or swimming in fresh water | Various forms of the disease occur in Africa, some Caribbean islands, northern part of South America, east Asia, and eastern and western south Asia |
| Taeniasis (tapeworm) | Ingestion of raw or undercooked beef or pork; cysticercosis is caused by ingestion of faecally contaminated food or water containing eggs of Taenia spp. | Worldwide |
| Trichinellosis | Ingestion of raw or undercooked pork products, wile boar, bear, or walrus | Worldwide |

Travellers are at special risk of contracting sexually transmitted diseases, being outside their normal environment and in close proximity with the persons who have high incidence of such diseases. Sexual contact has been shown to be the main mode of transmission for human immunodeficiency virus

(H.I.V.) the causative agent of AIDS. The risk of infection with these diseases is increased by having multiple sexual-partners, either homosexual or heterosexual. Person-to-person transmission often occurs from apparently healthy persons who are capable of transmitting infections. There is no effective vaccine or treatment for AIDS.

“The risk of AIDS and other sexually transmitted infections can be avoided by the unmarried through abstinence and, by the married, by confining sexual relationship to lawfully married spouse and within the limits laid down by religion. All religions forbid extra-marital sex and homosexuality and, in Islam, transgressions carry heavy penalties’

Many arthopodes transmit communicable diseases such as Malaria, Yellow fever, Dengue and Dengue haemorrhagic fever, Viral encephalitides, Filariasis, Onchocerciaris, Leishmaniasis, Trypnosomiasis, Plague, Tungiasis, Typhus and relapsing fever. These can be prevented by wearing appropriate clothing and footwear.

Animal associated diseases include rabies, haemorrhagic fevers and anthrax. They can be prevented by avoiding contact of domestic dogs and cats with wild animals, avoiding contact with rodents and use of adequately treated leather goods. Biting and stinging fish, corals and jellyfish may all provide hazards to the bather. Poisonous - snakes are hazards in many areas.

**REFERENCE**

1. Vaccination Certificate Requirements and Health Advice for International Travel. W.H.O. , Geneva,1987.