ABC of Healthy Travel

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PREVENTING ILLNESS WHILE ABROAD

With immunisations behind him, and with antimalarial and possibly antidiarrhoeal tablets in hand, the departing traveller may be tempted to think that no further health precautions are necessary. Few of these preliminary measures are fully effective, however, and unexpected diseases may occur. Many illnesses could be prevented by simple precautions—in particular with water, food, and personal hygiene. Care over sunbathing and unfamiliar surroundings that lead to accidents have been mentioned already.

Drinking water

At present three-fifths of the world's population are estimated to have inadequate supplies of drinking water, and one of the aims of the International Drinking Water Supply and Sanitation Decade is to provide good drinking water for all by 1989. Contamination of drinking water with living organisms is a major cause of illness among travellers. In Britain we drink water straight from the tap and rarely consider that water may be a source of disease. Most short-stay tourists are unlikely to face a shortage, but when this occurs the water may carry a higher proportion of impurities and disease-causing organisms because of concentration.

Escherichia coli gastroenteritis, giardiasis, shigellosis, amoebic dysentery, hepatitis A, typhoid, and cholera may all be water-borne. When the source and cleanliness of a water supply are in doubt the best means of sterilising drinking water is by boiling. Filtration and chlorination with tablets, either alone or together, are second best options because of the limitations of and difficulties in controlling these methods by the casual user. Some cysts and organisms such as hepatitis A virus can be very resistant. Water used for brushing gums and teeth, for washing foods, and for making ice may also be sources of infection. Babies who are breast-fed are unlikely to be infected until water is drunk and weaning begins, and the value of breast-feeding should be emphasised. If bottle-feeding is used scrupulous attention must be paid to hygiene both with water for mixing feeds and with utensils.

Water pollution is usually caused by human and animal excrement. The likelihood of this must be considered. For example, is the tap water supply from surface sources? This is more likely to be contaminated than that from artesian or protected deep wells. Does the water supply pass through an efficient purification plant? There may be no easy way of discovering this, particularly for short-term travellers. If there is no reliable authority to consult drinking water should be boiled. Most package tours are arranged to hotels where the tap water is reliable or else boiled water is provided for drinking and cleaning teeth, but special care should still be taken when drinking out. Bottled drinks are usually safe, especially if they are carbonated, but locally produced drinks, including some in bottles, may not have been sterilised. Hot tea and coffee are safe standbys.

Swimming

The main hazard from swimming is accidents—diving into shallow water or slipping on wet surrounds to swimming pools. If the water smells of chlorine the risk of contracting ingested infections is probably slight. A shower is generally a more effective way of cleaning the body than bathing.

The traveller to the tropics must be aware of the dangers of water based diseases such as schistosomiasis, which is prevalent where defective sanitation combines with the presence of fresh water weed and the snail vector. Tour operators and hosts may play down the risk of swimming at the local beauty spot. Local advice should be sought before swimming at sea since there may be sea snakes, which are especially prevalent in coastal waters around Asia and in the western Pacific, and other sea creatures, some of which can cause irritating rashes or occasionally fatal stings. More accidents are probably due, however, to lack of respect for sea currents and the use of floating air beds. The Mediterranean Sea has gained a reputation for pollution because much sewage and industrial waste empties directly into the sea, which has only a minimal tidal flow, limiting its dispersal. The direct risk to bathers is, however, small and usually limited to the immediate surrounds of the waste outlets, where solid matter is present.

Personal hygiene

Sanitation and water supply go hand in hand. Water closets are obviously inappropriate where there is not enough water for drinking and washing. The inexperienced traveller may find dry and "crouch" type toilets difficult to use, and washing rather than using toilet paper is standard in many countries.

Showers and air conditioning systems may be responsible for spreading *Legionella pneumophila*, the organism responsible for legionnaires' disease, which is most likely to cause infection when disseminated in an aerosol, possibly in association with amoebae, and inhaled. It is difficult to give the traveller specific advice on how to prevent infection, but there is evidence that hotels and similar institutions are becoming more aware of the problem. Adequate chlorination of all public water supplies should reduce the incidence of this recently recognised infection, and the likelihood of catching it has tended to be exaggerated in the media. In Britain it was first recognised in tourists returning to Scotland from a package tour to Spain, and since then its association with travel has been well established. Nevertheless, only one-third of the 1000 or so cases occurring in Britain each year are imported, mostly from Spain, to where most tourists go. It results in a multisystem illness commonly presenting with pneumonia, and mortality in diagnosed cases is about 10%—usually in those whose general health is poor.

If the traveller indulges in casual sex the risk of infection with a sexually transmitted disease, which may be due to a resistant organism, is high in many parts of the world. Gonorrhoea and syphilis may cause serious long-term disability, especially if effective treatment is delayed, and hepatitis B can also be spread sexually.

Human tuberculosis and leprosy are widespread in tropical areas and are thought to be transmitted principally through sputum and nasal discharge respectively. Those repeatedly exposed, as in a hospital, are at greatest risk from these infections. Safe disposal of infected material should be encouraged.

Care of the teeth and gums should not be neglected after having made sure before departure that they are in good condition. Dental sticks and floss are valuable, especially when there is doubt about the sterility of tooth brushes or water.

Food and alcohol

Most food-related illness is due to either infection or a change in the amount or type of food, which may upset those, for example, with oesophageal reflux or gall-bladder problems. Infection may originate in the food—for example, tapeworms or toxoplasmosis—or be introduced by dirty hands or through washing foods with impure water. Some foods are particularly prone to contamination, and care should be taken, as indeed it should be in Britain.

Poultry is a common source of salmonella and campylobacter infections, especially when eaten cold. All meat of uncertain origin should be thoroughly cooked and eaten hot whenever possible. Some fish contain toxins in their flesh. This is more common in fish from tropical than from temperate seas and sometimes occurs only at certain times of year. Gastrointestinal and neurotoxic symptoms may occur. In addition to being responsible for similar toxin-mediated effects, shellfish can concentrate micro-organisms through their food-filtering mechanisms, leading to outbreaks of disease such as typhoid. The traveller will have to depend on local advice, but is wise to avoid seafoods when in doubt about their safety. Vegetables and fruit may have been manured with excreta or handled with dirty hands, but cooked vegetables are usually safe, and fruit can be peeled. Salad vegetables are harder to clean and are best avoided because they are a frequent vehicle for transmission of gastrointestinal infections.

Many people drink more alcohol than usual while on holiday, and in hot climates this may aggravate heat exhaustion as well as resulting in a laissez-faire attitude towards risks from food, drinks, and sexually transmitted diseases.

Unpasteurised milk may convey tuberculosis, brucellosis, Q fever, salmonellosis, and campylobacter infection, and boiling is a wise precaution.

Skin care, bites, and stings

Mosquitos, sandflies, tsetse flies, and other biting insects cause much inconvenience because of local reactions to the bites themselves as well as from the infections they transmit, such as malaria, leishmaniasis, and trypanosomiasis. Local reactions usually become less of a problem as time passes since some immunity develops. Some people, however, develop hypersensitivity. Mosquitos bite at any time of day, but most bites occur in the evening. A common mistake is to travel to hot countries equipped only with short sleeves and nothing with which to cover the legs in the evenings. The chat in the cool of the evening may then be spoilt by the constant biting of mosquitos. Various insect repellents are available, and ones containing diethyltoluamide are most widely used. They have to be applied to all exposed areas and last for only a few hours. Most people constantly exposed find that appropriate clothing, window netting, and mosquito nets over beds are more practical. Small eye flies are difficult to control and may transmit agents causing conjunctivitis. Early attention should be paid to eye symptoms.

Cool footwear such as open sandals with no socks or tights reduces the chance of tinea pedis but exposes the feet more to mosquito bites and injury, with the risks of secondary infection and, in the unimmunised, of tetanus. Feet in contact with water or damp soil may be penetrated by pathogenic leptospirae, hookworm larvae, and the cercariae of schistosomes.

Other unexpected sources of skin reactions, usually limited to erythema or urticaria, include caterpillars, blister beetles, mites, bed bugs, and sea creatures such as jellyfish. Campers and those walking in the country may be bitten by ticks, which should be removed promptly and completely. Occasionally these transmit rickettsiae, viruses, and other organisms. Leeches can be troublesome and potentially dangerous if they attach themselves internally or are so numerous as to cause anaemia. For those likely to be exposed to these creatures protective clothing is valuable and chemical protection can be considered.

When in doubt

- (1) Drink only boiled water and boiled milk. Beware of bottled drinks from unreliable sources.
- (2) Cook meat and fish thoroughly. Avoid leftovers.
- (3) Eat only cooked vegetables and avoid salads.
- (4) Peel all fruit including tomatoes.
- (5) Be wary of seafoods, especially shellfish.
- (6) Buy ice cream from larger firms only.
- (7) Take extra care when treating cuts and abrasions.
- (8) Remember mosquitos as well as climate when planning clothing and footwear.
- (9) Take some toilet paper.
- (10) Do not approach stray animals.

Although infestations such as scabies and head lice are seen in Britain, they may cause problems for travellers, particularly those living rough or travelling overland in varied accommodation with limited washing facilities. Such travellers often come from social backgrounds where these parasites are unfamiliar.

The size of a spider bears no relation to its danger, and scorpions, most of which are nocturnal, make walking with bare feet after dark risky. Shoes should be examined before they are put on in case something is resting inside. Snakes often shelter under vegetation, among rocks, or sometimes in termite nests. They normally bite humans as a defensive reaction to being disturbed. Poisonous snakes include the elapids (landsnakes with short fixed fangs), sea-snakes, and vipers, which probably cause the most deaths. If snake bites are going to produce symptoms they usually do so within 12-24 hours. The various lizards which abound in warm climates are generally harmless. In some domestic settings they help keep down mosquitos and flies.

Dogs and cats abroad should not be petted unless they are known to be healthy. We are fortunate in Britain so far in not having indigenous rabies but this is not the case in Europe, the Americas, and most tropical areas, the most notorious of which are Asia and tropical Africa. Children particularly may have a strong urge to pet stray animals, and this must be prevented.

Bites and skin injuries should always be cleaned and dressed with special care until healing takes place. They easily become infected in tropical climates.

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Social and psychological adaptation

Awareness that living overseas will demand changes in lifestyle does not necessarily make adaptation easier. The numbers of people who return for psychiatric reasons and who cut short contracts working abroad indicate that many have difficulty in adapting. Similar problems may contribute to the high alcohol consumption and common complaint of headaches among holidaymakers. Separation from relatives and friends with whom problems are normally shared, language and currency differences, and adjusting to the image that local people may have of the expatriate may all cause difficulties. In particular, bargaining, using public transport, and accepting domestic help may be stressful for the housewife. In professional relationships the role expected of the foreigner may vary from that of a respected counsellor to that of an intruder.

The package tourist may be able to get help from a representative of the tour company and also knows that even if things become difficult he will soon be returning home. Those spending longer abroad may find it helpful to seek specific advice before departure about the area to be visited, although personal experiences and requirements are unlikely to be identical. For example, some people like to take with them familiar possessions, while others prefer to buy items abroad, where they may be cheaper and more appropriate. Some organisations, such as Voluntary Service Overseas and missionary societies, arrange courses before departure or periods of adaptation while overseas in the company of experienced expatriates. If an adviser or friend can greet the newcomer on arrival he may help to overcome many seemingly difficult domestic problems early. A conscious and determined effort to learn the local language is valuable, and a musical, dramatic, or other social skill which can entertain others is likely to be appreciated where entertainment is not dominated by mass media. Many parents find their children lead them quickly to new friendships.

Finding out where medical help is available from before it is needed can prevent unnecessary anxiety, especially for those who have a disability or have children travelling with them.