



Emporiatics: A Comprehensive Guide to Travel Safely

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The journey overseas has its manifold benefits resulting in its increased trend these days. People are more aware of its positive impact on mental and physical wellness, but they are less aware of the risks and issues that it poses. International travel is becoming more popular as it promotes physical and mental well being while also providing job and educational opportunities. With this boost in international travel, it is critical to ensure traveller's safety. Tourists are susceptible to a wide range of travel-related health issues, from insect bites to injuries in extreme sports or due to extreme climate. Children, elderly, and people with underlying diseases should take extra care and precautions. Emporiatics, also known as travel medicine is a multidisciplinary speciality that promotes health and provides prevention and management of health problems encountered by international travellers, with a primary emphasis on preventive pre-travel care. It suggests the need to consult health care professional beforehand and if required referral to travel medicine specialist. Therefore, it is necessary to raise awareness about this issue for the well being and safety of the tourists.

KEYWORDS: Travel medicine, Travellers health, Vaccines, Travel kit, Travel medicine specialist

INTRODUCTION

Emporiatics is derived from greek word “emporos”: One who goes on shipboard as a passenger and “iatrike”: medicine. It is the study of diseases in travellers.¹

Travel medicine is the field of medicine that deals with promotion of health, prevention of diseases and management of health problems of international travellers. It's first approach is pre-travel preventive care.

Travel medicine is a rapidly evolving, highly dynamic, multidisciplinary specialty that requires expertise on various travel-related illnesses, as well as up-to-date knowledge on the global epidemiology of infectious and noninfectious health risks, health regulations and immunisation requirements in various countries, and the changing patterns of drug-resistant infections.

WHY IT IS IMPORTANT?²

A. Risk of diseases in the country:

1. **Japanese encephalitis:** In parts of eastern and southeastern Australia.
2. **Global Polio:** Circulating poliovirus in Afghanistan, United Kingdom, Egypt, Israel, Nigeria, Pakistan, Uganda, Ukraine etc.
3. **Dengue:** Risk in many parts of Asia and the Pacific Islands like Afghanistan, Bangladesh, India, Laos, Malaysia, Myanmar (Burma), Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Vietnam.

B. Contaminated food and water:

1. Contaminated water can cause diarrhoea, vomiting, or infection of the ears, eyes, skin, or the respiratory or nervous system.
2. Contaminated (raw/ undercooked) food can cause food poisoning.

C. Environmental risks:

1. Climate change: Extreme temperatures, uv radiations, changed humidity and changed altitudes can cause frostbite, hypothermia, sun burn, dermatitis, heat stroke, respiratory distress, altitude sickness and thromboembolism respectively.
2. Changed time zone (circadian rhythm) can cause jet lag.
3. Air travel can cause motion sickness and barotrauma.
4. Air pollution and animals and insects exposure can cause respiratory problems or failure and insect-borne diseases, bites/ stings respectively.

D. High Risk Travellers

1. Immunocompromised patients
2. Pregnant or breastfeeding women
3. Extreme age groups like young children and elderly.
4. Pre-existing medical conditions or chronic illnesses (eg, diabetes mellitus, chronic cardiac or pulmonary conditions, renal disease, psychiatric illness, cancer, epilepsy, etc).
5. History of anaphylaxis to medications, foods, or insect bites
6. VFRs (travellers that have migrated from a



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Submitted on: 06-Jun-2022; Accepted on: 04-Oct-2022

developing country to an industrialised region, and who are now returning to their country of birth). Compared with other groups of international travellers, VFRs (particularly children) experience a higher incidence of travel-related infectious diseases.

E. Falls/accidents

Road side accidents, drowning, air crashes, injuries involved in extreme sports. Accidents are the second most common cause of death in travellers (after cardiovascular disease), accounting for as many as one-third of deaths.

6. Extreme Sports:

1. White-water rafting: Increased risk of leptospirosis specially after heavy rainfall or flooding.
2. Spelunking: Cavers are at an increased risk of rabies and histoplasmosis.
3. Swimming in fresh water: Schistosomiasis (parasitic infection) is prevalent in tropical and subtropical areas (Africa).
4. Trekking and Hiking: Risk of altitude illness in destinations which are >2500 to 3500 m above sea level (e.g. Peru; La Paz, Bolivia; Lhasa, Tibet; Everest base camp in Nepal) which, if not appropriately managed, can progress to ataxia, coma, and even death.

HOW DENTISTRY CONTRIBUTES?

1. Dental Emergency:
 - a). Barodontalgia:³ It is defined as tooth pain occurring in changes in ambient pressure. E.g. Flying and diving. It occurs in travellers with new or recurrent caries, pulpitis after restorative treatment, intra-treatment endodontic symptoms, dental and periodontal cysts, or abscesses.
 - b). Dental trauma: Pain due to cracked or chipped tooth (tooth fractures), knocked out tooth (avulsion), injury to gums, palate or mouth through trauma or impact. These injuries can occur due to random falls, injuries in extreme sports, biting hard foods, violence etc.
 - c). Dislodged or broken restoration: Damaged fillings and loose prosthesis if causing pain, discomfort and difficulty in function.
 - d). Previous untreated dental problems: Untreated dental caries, pulpitis, grossly decayed tooth, pericoronitis. These problems can cause discomfort, difficulty in eating, sudden excruciating pain or dull pain which is long lasting and can even progress to infection and swelling.

2. Dental kit: toothpaste, dry toothbrush with cap to avoid contamination, dental floss, mouth wash, dental pain killers such as acetaminophen or ibuprofen, sugarless gum for chewing after meals to increase saliva flow to help remove food particles and sugar from your mouth, dental appliances if used daily such as retainer, headgear, night guard, mouth guard, or dentures must be packed along with case.

3. Food and beverages: Eat mindfully, after having sugary drink or desert make sure to rinse your mouth and brush afterwards. Do not chew on hard foods like ice, candies to prevent any kind of dental trauma. Make sure you brush twice everyday along with flossing and mouthwash.

4. Pre-travel dental appointment: WHO recommends that you pay us a visit every 6 months for a dental exam and cleaning. Make sure all your emergency treatments are done along with scaling and restorations. Dentist will examine and look for cavities, tooth decay, gum disease and other potential problems like loose fillings or crowns. Dental problems should be addressed before leaving to avoid potential problems in abroad.

HOW TO DEAL?

A. Pre-Travel:

1. Visit your Primary care doctor or a travel medicine specialist and your dentist. According to the World Health Organisation, people who plan to travel need to contact a physician specialised in travel medicine, at least 4-6 weeks prior to departure.
2. Get your check ups and treatments done before leaving including the dental treatments and scaling.
3. Get your routine, required and recommended vaccines: Check the list of routine vaccines on CDC website and select your destination for recommended vaccines and consult your doctor before getting one.
4. Pack smart list: According to CDC: Prescription medicines, Medical supplies, Over-the-counter medicines, Supplies to prevent illness or injury, First-aid kit and Documents. Dental kit should also be packed.
5. Travel Insurance: Check for medical and dental care coverage.

B. During Travel:

1. Food and water: Avoid tap water, raw foods, unpasteurised dairy, undercooked meat/ fish. Seek restaurants with excellent reputation and safety.
2. Vector-borne illnesses: Avoid outdoor exposure between dusk and dawn (vector feeding times) for

malaria, use insecticide treated bedding and clothing, use insect repellents.

3. High risk activities: Avoid freshwater exposure where schistosomiasis is prevalent, approaching, avoid approaching animals, at high altitudes: Acclimatise, ascend gradually, avoid over exertion.

4. Maintain your oral hygiene: Practice brushing, flossing, tongue cleaning daily with mouth rinses.

C. Post- Travel:

1. Symptomatic Travellers returning with symptoms like fever, diarrhoea with blood, altered mental status, severe abdominal pain, jaundice or rash should seek prompt medical care and mention their travel history.

2. Complete the course of malaria tablets if taking as recommended.

3. Get yourself tested for itinerary specific or country specific diseases e.g. contact with fresh water rivers and lakes in the tropics (for example for swimming) should get schistosomiasis screening tests done, if the disease is considered to be present in the country and those developing symptoms of COVID-19 should follow current public health guidelines.

CONCLUSION

With the growing trend of travelling abroad for vacations or education, travel medicine has become a significant topic to explore, particularly in the post covid era. Increased international travel and development of tourism industry make travellers more vulnerable to various health risks and travel related sickness. There is lack of awareness among people regarding all kinds of health problems that may arise during their journey overseas, therefore it is necessary for travellers to consult a health care professional beforehand and seek pre travel health advice. This will assist them in taking all necessary precautions and pack all the essentials to ensure good health and safety

during and post travel especially for the high risk individuals.

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Cite this article as:

Singh J, Chaudhary P. Emporiatrics: A Comprehensive Guide to Travel Safely. Int Healthc Res J. 2022;6(7):RV1-RV3. <https://doi.org/10.26440/IHRJ/0607.10564>

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Source of support: Nil, Conflict of interest: None declared

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