



# Undergraduate Medicine International Electives Personal Health and Safety

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## Health Screening Office

<https://fhs.mcmaster.ca/healthscreening/>

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# International travel health and safety issues

- Infectious diseases
- Physical injury
- Environmental hazards
- Sexual Health
- Mental health
- Post travel illness

Resources:

[Government of Canada: Travel Health and Safety](#)

[2018 Journal of Travel Medicine: Protecting the health of medical students on international electives in low-resource settings](#)

[2008 AFMC Global Health Resource Group and CFMS Global Health Program: Preparing Students for Electives in Low-Resource Settings](#)

## General guidelines

- Be aware of the infections you may encounter during travel and the mode of transmission. Review current travel advisories and vaccine requirements for your destination at [Government of Canada: Travel Health and Safety](#)
- Visit a travel clinic and family physician/student health clinic for any required vaccinations and/or medications.
- Arrange for international travel health insurance.
- Pack a travel health kit. Consider taking personal protective equipment (masks, gloves, gowns) with you if resources at the placement site are limited.
- Observe routine practices in the health care setting to prevent infection. Outside the clinical setting, take precautions to avoid infection from food, water, insect vectors or animals.
- Be aware of the prevalence of and post-exposure protocols for blood borne viruses (Hepatitis B, Hepatitis C, HIV) and tuberculosis in the area you are visiting. Report any possible exposure immediately.
- Take precautions to avoid injury (particularly traffic collisions), excessive sun exposure, or dehydration.
- On return, seek medical advice for any illness that may be related to your travel. Have a post-exposure tuberculin skin test (TST) if required.

## Baseline protection

McMaster medical students have protection against the following infections:

- Tetanus
- Diphtheria
- Polio
- Pertussis
- Measles
- Mumps
- Rubella
- Varicella
- Hepatitis B (except vaccine non-responders and carriers)
- COVID-19 (primary series)

Have your Year One Health Screening Record, immunization records and serology reports available with you in case they are needed by your placement site.

## Examples of travel related infections

- **Food and water transmission**
  - Cholera
  - E. Coli
  - Hepatitis A
  - Schistosomiasis
  - Typhoid
- **Vector-borne illness**  
(insect transmission)
  - Chagas disease
  - Dengue fever
  - Japanese encephalitis
  - Leishmaniasis
  - Malaria
  - Yellow Fever
  - Zika virus
- **Blood borne viruses**
  - Hepatitis B
  - Hepatitis C
  - HIV
- **Animal transmission**
  - Avian influenza
  - Leptospirosis
  - Rabies
- **Human to human transmission**
  - Ebola (also animal transmission)
  - Influenza
  - Meningococcal disease
  - Sexually transmitted infections
  - Tuberculosis (TB)
  - COVID-19
  - Monkeypox (also animal transmission)

# Pre-departure prevention

## Immunizations

- Meningococcal disease
- Hepatitis A
- Japanese encephalitis
- Rabies
- Typhoid fever
- Yellow fever
- COVID-19 (additional booster doses as recommended by Public Health Agency of Canada)

## Medications

- Cholera/ETEC (enterotoxigenic E. coli)
- Malaria

Resources:

[Government of Canada travel vaccination recommendations by destination](#)

[WHO vaccination requirements and recommendations for international travellers, including yellow fever and malaria](#)

# Travel Health Clinics

Contact a local travel health clinic at least two to three months prior to departure to ensure that you are adequately prepared. Some vaccinations and medications may also be obtained from your family physician or campus student health clinic.

**Note:** Travel health is not covered by OHIP.

## **Hamilton region:**

<https://www.passporthealthglobal.com/ca/locations/on/ontario/ontario-travel-clinics/hamilton-clinic/>

<http://travelhealthclinics.ca/Travel-Health-Clinic-Listing.aspx>

## **Waterloo region:**

<https://www.regionofwaterloo.ca/en/health-and-wellness/travel-vaccines.aspx>

## **St. Catharines:**

<https://www.passporthealthglobal.com/ca/locations/on/ontario/ontario-travel-clinics/st-catharines-clinic/>

## Travel health kit

- Antibiotic for self-treatment of mild traveller's diarrhea or UTI
- Over-the counter medications
  - Pain and fever medication (ibuprofen, acetaminophen)
  - Stomach and intestinal medication, such as antacids and laxatives
  - Antihistamine (diphenhydramine, cetirizine) +/- Epi-pen
  - Anti-diarrheal medication (loperamide)
  - Anti-motion sickness medication (dimenhydrinate)
- Sunscreen
- Antibacterial/antifungal/hydrocortisone ointments or creams
- Cough drops
- Hand sanitizer
- Insect repellent (DEET)
- Water purification tablets
- First-aid supplies (bandages, gauze)
- Gloves, N-95 mask
- Needles or syringes if required for medical reasons (take more than enough to last for your entire trip and carry a medical certificate).



## Preventing infection during an elective

### Health care setting:

- Always observe [Routine Practices](#). If you do not feel safe, withdraw from the situation.
- Only perform procedures you feel competent to do.

### General precautions:

- Wash hands with soap or sanitizer before eating, after handling money, and after using the washroom.
- Eat foods that are cooked and served hot, be mindful of unpasteurized dairy products, food at street vendors, seafood, and salads.
- Use bottled water, or bring water purification tablets from Canada, or boil water for at least one minute.
- Avoid ice that isn't made with bottled water.
- Avoid swimming in freshwater, particularly in slow moving water.
- Use an insecticide treated mosquito net.
- Wear shoes, pants, and a long sleeve shirt during peak mosquito hours.
- Use a repellent with an appropriate DEET concentration.
- Avoid areas with standing water where mosquitoes lay their eggs.

## Blood borne viruses Hepatitis B, Hepatitis C, HIV

- Be aware of blood-borne virus prevalence rates in the area you are visiting.
- Students known to have a blood borne infection need to consult with the McMaster Associate Dean of Undergraduate Medical Education pre-departure so that appropriate measures can be put in place.
- Only perform exposure-prone procedures if competent to do so.
- Be aware of post-exposure protocols at your placement. Report any possible exposure immediately.
- Students who are not immune to Hepatitis B (vaccine non-responder) should receive passive immunization with immune globulin post-exposure. The efficacy of immune globulin decreases significantly 48 hours after exposure.
- Post-exposure prophylaxis (PEP) can potentially reduce the risk of HIV infection. It may be less effective if initiated more than 72 hours after exposure. No effective PEP exists for Hepatitis C.

Resources:

[OHA/OMA Blood Borne Diseases Surveillance Protocol](#)

[World Health Organization: HIV PEP](#)

# Tuberculosis (TB)

- Be aware of the prevalence of TB in the area you are visiting.
- Wear an N-95 mask when attending patients with suspected or confirmed active TB disease.
- Students with previous **negative** baseline TB screening may require tuberculin skin testing (TST) after returning from their elective:
  - TST required eight weeks post-exposure for students who had unprotected exposure to a patient with suspected or confirmed active TB disease, or who attended an elective for one or more months in a country with a high TB incidence (> 30 cases per 100,000 population). See map for rates: <https://www.indexmundi.com/facts/indicators/SH.TBS.INCD/>
  - It is safe to attend clinical placement while waiting to have a post-exposure TST as long as there are no symptoms of active TB disease in the interim.
  - If the TST converts to positive, students must withdraw from clinical activities until they are cleared by the Health Screening Office.

For more information about TB click on [TB Risk Assessment and TST Conversion](#)

## Physical Injury

- The risk of death from injury while on elective is far higher than from infectious disease.
- Road traffic collisions are the commonest cause of death, followed by drowning and falls. Criminal injury, including muggings and robberies, are a risk as medical students from developed countries may be perceived by locals as wealthy and therefore, a ready target.
- Emergency and evacuation medical services are often underdeveloped or absent in developing countries.
- To mitigate risk:
  - Observe road safety advice
  - Dress in a manner that is culturally appropriate
  - Avoid wearing expensive jewellery or watches
  - Avoid travelling alone
  - Stay in well-lit areas
  - Inform others of your planned travel itinerary
  - Use reputable accommodation
  - Keep copies of important documents and bank card numbers separately

## Summary of other health and safety issues

### **Environmental hazards**

- Sunburn, heat illness, water and food safety

### **Sexual health**

- Contraception, sexually transmitted infections, sexual assault

### **Mental health**

- Pre-existing or underlying mental illness
- Physiological stressors (heat, dehydration, ill-health)
- Environmental stressors (unfamiliar surroundings, loss of social support network)
- Cultural issues (language barriers, extreme poverty, culture shock)
- Occupational factors (exposure to severe illness and death, feelings of incompetence, poor patient outcomes and lack of clinical support or resources, pressure from peers or supervisors).

### **Post travel illness**

- Seek medical advice if you are ill after returning from your elective.
- Withdraw from clinical activities and report immediately if you develop symptoms of a possible communicable infection.