

ECUADOR HEALTH GUIDELINES

GENERAL INFORMATION

The following health guidelines and requirements are based on years of experience and the current recommendations from the US Centers for Disease Control and Prevention (CDC). They are designed to inform you of health concerns that may be present in Ecuador especially as you venture to smaller cities off the usual tourist track or spend time in small villages and rural areas.



USING THESE GUIDELINES

Please review these health guidelines and discuss this information with your healthcare provider.

These health guidelines complement other Experiment and external resources to help you prepare for a safe and healthy program. Please use the information here in conjunction with:

- ✓ Your Experiment Ecuador Packing List
- ✓ Your Experimenter Handbook
- ✓ The Experiment Family Handbook
- ✓ The Experiment Guide to Travel Vaccinations and Medications

- ✓ The Experiment Guide to Traveling with Allergies/Intolerances
- ✓ The Experiment's ISOS Member Portal and Pre- Travel Support
- ✓ [The CDC travel site for Ecuador](#)

HEALTH RISKS IN ECUADOR

Health risks in Ecuador include exposure to diseases through bug-bites, contaminated food or water in certain locations, and other infectious disease and environmental challenges. The following guidelines can help you mitigate these risks and stay healthy on your Experiment program.

BUG-VECTOR ILLNESSES

Several diseases can be transmitted by bugs (such as mosquitos, ticks, flies, etc.) in Ecuador. Many cannot be prevented with vaccines or medication, so preventing bug bites and exposure is the best way to reduce the risk of these illnesses.

Concerns:

Malaria

Malaria is a protozoal infection transmitted by mosquitos that bite between dusk and dawn (overnight). Malaria is characterized by fever and flu-like symptoms. There is no vaccine for malaria, but prophylactic medications are available.

Since malaria is not a problem in Quito and the surrounding sierra (including the Cloud Forest excursion and the Galápagos Islands), malaria prophylaxis is not required for these parts of the program. However, you are at potential risk at lower altitudes (including your excursion to the Amazon), so for full protection you should take your first pill before any travel to the Amazon and continue for four weeks after your return to non-malarial regions.

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CDC guidelines suggest that prevention of malaria is possible if you carefully follow personal protective measures as described below and take one of the following antimalarial drugs (listed alphabetically) as directed by your health care provider: atovaquone/proguanil (Malarone), doxycycline, mefloquine, or tafenoquine (Arakoda). G6PD testing is required prior to tafenoquine use. **The selection should be discussed with your health care provider or health-care provider.** If, in spite of adherence to these preventive measures, you develop symptoms of malaria, prompt medical attention lessens the severity of the illness.

Dengue

Dengue is a viral disease and is transmitted by mosquitoes which bite primarily in the daytime. It occurs in urban as well as rural areas including on the Galápagos Islands. No risk exists in Quito. There is no licensed vaccine against it, but personal protective measures against mosquito bites are effective in prevention. Insect repellents, protective clothing such as long-sleeved shirts and pants, are therefore essential. The disease causes considerable discomfort (fever, body aching), but is self-limited in adults.

Chikungunya

Chikungunya is an arboviral infection that is transmitted by day-biting *Aedes* mosquitoes. It is prevalent in tropical Africa and Asia, parts of Central and South America, and the Caribbean. Low risk exists in Ecuador at elevations below 2,300m (7,500 ft); mainly in Guayas Province. Symptoms are typically fever and joint pain. Personal protective measures against mosquito bites especially during peak times (early morning and late afternoon) are the main prevention strategies.

Zika

Zika is a viral infection that is also transmitted by the bite of the *Aedes* mosquitoes. Symptoms include mild fever, rash, conjunctivitis (red eyes), joint or muscle pain and headache. The disease causes considerable discomfort, but is mild and self-limited, lasting for several days to a week. Low risk exists in Ecuador and the Galápagos Islands at elevations below 2,300m (7,500 ft).

There are no vaccines or medications available to prevent or treat Zika infections therefore students should be vigilant in using insect precautions and personal protection measures

against day-biting mosquitoes (see insect precautions section above).

CDC recommends that pregnant women consider postponing travel to countries where the Zika virus is prevalent.

Leishmaniasis (Cutaneous and Mucocutaneous)

Leishmaniasis is a protozoon infection that causes skin ulcers and is transmitted by the bite of sand flies and occurs especially in Amazonian regions. No risk exists on the Galápagos Islands. Insect precautions are recommended.

Yellow Fever

This is a viral disease transmitted by mosquitoes that occurs only in parts of Africa and South America. Yellow fever is characterized by severe hepatitis with fever. It may be prevented by avoiding mosquito bites (personal protective measures) and by getting the vaccination shots that are available at any yellow fever vaccination center (consult your health care provider for the nearest center).

Prevention:

For all the diseases listed above, bug exposure and bite prevention are crucial to reducing the risks to Experimenters' health. We recommend you take the following steps:

Prevent bug exposure and bites:

- Wear long sleeves, long pants, shoes, and hats to minimize exposed skin.
- Wear clothing and shoes treated with the repellent permethrin. (Permethrin is not for use directly on skin.)
- Use topical insect repellent regularly. (See recommendations below.)
- Avoid transiting tall grass, shrubs, or woody areas and check for ticks afterward.
- Consider using a bug net while sleeping. (Look for a net with fine mesh to exclude both mosquitos and sand flies.

Choose an appropriate insect repellent:

- PROTECTION AGAINST MULTIPLE BUGS (MOSQUITOS, TICKS, FLIES, ETC.): The CDC recommends a repellent which contains at least 20% DEET.
- PROTECTION AGAINST MOSQUITOES ONLY: Repellents other than DEET protect against mosquitos but may not be as effective against other bugs;



- Picaridin (also known as KBR 3023, Bayrepel, and icaridin)
- Oil of lemon eucalyptus (OLE) or para-menthane-diol (PMD)
- IR3535
- 2-undecanone (methyl nonyl ketone)
- Always use repellents as directed.
- Please consult your healthcare provider if you have any health concerns regarding bug repellents.

If bitten or exposed:

- Avoid scratching bug bites and apply hydrocortisone cream or calamine lotion to reduce itching.
- Check your entire body for ticks after outdoor activity.
- Let group leaders know immediately if you experience any symptoms on program (e.g. fever, aches, nausea, etc.)
- If you experience symptoms after program, please consult your healthcare provider and be sure to tell them about your travel.

FOOD- AND WATER-BORNE ILLNESSES

Several diseases can be transmitted through food and water contaminated with microbes unfamiliar to your system. These illnesses can range from minor to moderate GI distress to serious conditions. Care in selecting safe food and water and hygienic practices for handling food and water are crucially important to limiting exposure.

Concerns:

Diarrhea-Producing Infections

Traveler's diarrhea is a common intestinal infection caused by contaminated food or water. Bacteria are responsible for most cases of traveler's diarrhea, though viruses and protozoa account for a few. Fluid replacement is important with all cases of diarrhea to maintain hydration. Be sure drinks are from safe sources (see below) and avoid sugary drinks which can cause additional fluid loss in the intestines. For severe cases of dehydration, oral rehydration solutions (ORS) are recommended. Antidiarrheals such as Imodium or Lomotil may be effective short-term to relieve symptoms. Antibiotics may be indicated for persistent cases of diarrhea. Safe food, water, and hygiene practices as detailed below can help minimize risk of exposure to the microbes which can cause traveler's diarrhea.

Hepatitis A

Hepatitis A is a viral disease that causes liver inflammation and can be transmitted through contaminated food and water. Symptoms can begin 2-8 weeks after exposure and may include fever, chills, fatigue, abdominal pain, nausea, vomiting, dark urine, and jaundice. A very effective vaccine is available and should be administered 2-3 weeks prior to travel. Many Experimenters may have already received this vaccine as part of their recommended childhood vaccination course. Please consult your healthcare provider. Safe food, water, and hygiene practices as detailed below remain important to minimize exposure to the Hepatitis A virus.

Typhoid Fever

Typhoid is an infection caused by a salmonella bacterium that can be transmitted through contaminated food and water. Symptoms include high fever, weakness, stomach pain, headache, and loss of appetite. Typhoid vaccination (injection or oral) is not 100% effective and is not a substitute for being careful about food and water. Please consult your healthcare provider. Safe food, water, and hygiene practices as detailed below remain important to minimize exposure to the salmonella bacterium that causes typhoid.

Leptospirosis

This is a bacterial infection caused by the *Leptospira* bacteria. The disease is spread through direct contact with the urine, blood or tissue from infected animals or rodents or through water, soil, or food contaminated with their urine. It's most common in warm climates. Travelers who come in contact with the disease may experience symptoms of high fever, headache, bleeding, muscle pain, chills, red eyes, and vomiting. Without treatment, leptospirosis can lead to kidney and liver damage and even death. This disease is treated with antibiotics (doxycycline, penicillin) to clear the infection.

A note on swimming: Avoid swimming or wading in fresh water. Many parasites and bacteria live in water and can cause serious illness. Properly chlorinated pools and salt water are generally safe from infectious diseases.

Prevention:

In Ecuador, tap water is considered unsafe. If you are unsure of the food and water quality in the area you are visiting, check with a reliable source before using. You can protect your

health in Ecuador by observing the following food, water, and hygiene do's and don'ts:

DO PRACTICE GOOD HYGIENE BY

- Washing your hands thoroughly with non-contaminated water and soap before meals and snacks. If handwashing is not possible, use hand sanitizer with > 60% alcohol.
- Avoiding touching your face, particularly the eyes, nose, and mouth. If you need to touch your face, wash your hands first.
- Not sharing water bottles, cups, or eating utensils and by washing personal equipment like water bottles regularly.
- Avoiding close contact with sick individuals.

DO DRINK

- Bottled or canned beverages such as water, soda, or soft drinks from trusted sources. (Always ensure caps are sealed).
- Hot beverages such as coffee or tea.
- Water that has sustained a rolling boil for at least one minute at sea level and longer at higher elevations.
- Carbonated mineral water.

DO EAT

- Cooked vegetables, fruits with thick covering such as citrus, bananas, and melons; well-washed raw fruits and vegetables.
- Meat or fish that is thoroughly cooked—pork and lamb should be very well done.
- Pasteurized dairy products from large commercial dairies.
- Food that has been freshly cooked and served hot; busier restaurants may be more likely to serve freshly cooked food.

DON'T EAT OR DRINK

- Unwashed or pre-peeled raw fruits and vegetables, salads.
- Fruits that do not have a thick peel.
- Rare or raw meat, fish, or shellfish.
- Dairy products from small, independent vendors without pasteurizing facilities.

- Raw (unpasteurized) milk or milk products.
- Food of any kind that has been stored warm (e.g. over a chafing dish or bain marie) or left out in the sun.
- Well water or tap water outside major cities.
- Ice or drinks made with tap or well water.
- Flavored ice and popsicles.

There may be times when refusing an offer of food or beverage, even a drink with ice or avoiding a salad will be considered rude. You must use your best judgement in such circumstances. Polite refusals, thought out in advance, are often handy.



OTHER DISEASES & HEALTH RISKS

Disease-causing pathogens can also be transmitted by animal exposure and contact with human bodily fluids, while environmental factors can exacerbate an illness or pose health risks in their own right. The following guidelines include a variety of strategies to keep you safe and healthy in Ecuador.

ANIMAL-VECTOR ILLNESSES

Rabies

Rabies is a viral disease transmitted by animal bites and scratches. Dogs and bats are common carriers of rabies, but a bite or scratch from any animal must be taken very seriously.

A pre-exposure vaccine is available for rabies— please consult the CDC and ISOS for the most current rabies vaccination recommendations for Ecuador and discuss with your healthcare provider. Note that pre-exposure vaccination does

not eliminate the need for treatment if you are exposed, but vaccination does simplify the treatment you may require.

Regardless of vaccination status, the following steps are important for minimizing rabies exposure risk and for responding appropriately if you may have been exposed:

Avoid contact with unknown animals and especially avoid handling or feeding puppies, kittens, bats, and monkey. They can have rabies before it is obvious.

If you have been bitten, scratched, or have had direct contact with the saliva of a suspected rabid animal, immediately wash the affected area with a soap and water and a povidone-iodine solution if available. Then proceed immediately for post-exposure treatment.

If possible, the animal should be captured and kept under cautious surveillance until the diagnosis and therapy are completed. If capture is not possible, a clear description of the animal and the circumstance of contact should be carefully recorded.

AIR-BORNE ILLNESSES

Coronavirus COVID-19

COVID-19 is a respiratory virus that is spread through direct contact with an infected person as well as through respiratory droplets produced when an infected person coughs or sneezes. Symptoms of COVID-19 may appear **2-14 days after exposure** and may include fever, cough, and shortness of breath. The illness can also cause muscle or body aches, sore throat, vomiting and diarrhea. Reported illnesses have ranged from mild symptoms to severe illness and death. *There are multiple vaccines to protect against the coronavirus disease 2019 (COVID-19). CDC states that a person is considered fully vaccinated two weeks after receiving the last recommended dose of vaccine. The best way to protect yourself is to obtain the COVID-19 vaccine and to continue to follow COVID-19 precautions!*

- **Clean your hands often**-wash your hands carefully and frequently with soap and water for at least 20 seconds especially after you have been in a public place, or after blowing your nose, coughing, or sneezing. If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. Cover all surfaces of your hands and rub

them together until they feel dry. Avoid touching your eyes, nose, and mouth with unwashed hands.

- **Cover your mouth and nose** with a tissue when you cough or sneeze or use the inside of your elbow. Throw used tissues in the trash.
- **Clean AND disinfect** frequently touched surfaces daily. This includes tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, and sinks.
- **Avoid close contact.** Put distance between yourself and other people if possible. Practice physical distancing by staying at least 6 feet apart.
- **Inform your Group Leader immediately** if you have a pulmonary disease or any respiratory illness; have a fever or feeling sick; if you have been in close contact with a person known to have COVID-19; and/or have recently traveled from an area with widespread or ongoing community spread of COVID-19.
- **Contact ISOS and a health care provider** if you develop symptoms.
- **Avoid travel if you are sick or have a fever.** Your Group Leader will make appropriate accommodations for students who are ill.
- **Wear a facemask**, especially when you are around other people (e.g., sharing a room or vehicle) and before you enter a healthcare provider's office.
- **Most importantly, stay connected:** Communicate daily with your Group Leader. The Experiment continues to update its contingency and evacuation plans to ensure that we are prepared to take appropriate action in the event of a change in circumstances.

The Experiment recommends that students check the country's consular website for up-to-date information on entry and exit requirements

Tuberculosis

Tuberculosis (TB) is a bacterial infection spread by droplets coughed or sneezed into the air from an individual with active TB disease. Not everyone exposed to or infected with TB virus will become sick; symptoms of active infection can include a cough, fever, fatigue, lack of appetite, weight loss, and night sweats. TB is present in Ecuador; risk to travelers is considered low, as prolonged, close exposure to an infected individual is

usually required to contract TB. Experimenters can reduce their chances of TB exposure in Ecuador by limiting time spent in crowded locations, avoiding individuals with coughs, and practicing good hygiene.

BLOOD-BORNE ILLNESSES

Diseases transmitted through contact with blood or other bodily fluids are concerns throughout the world, including Ecuador. Universal precautions against contact with any other individual's bodily fluids including blood, vomit, sexual contact, etc. should be practiced at all times. This includes refraining from body piercings and tattooing while abroad, as prohibited by The Experiment's Code of Conduct.

Hepatitis B

Hepatitis B is a serious and often chronic viral infection of the liver. Since this type of hepatitis is most often acquired from contact with infected blood, sexual contact (as with HIV), or skin-to-skin contact of mutual open cuts and sores, appropriate precautions to avoid these types of exposure are necessary. This includes avoiding getting tattoos, or ear/body piercings and avoiding cuddling children with sores or draining insect bites. A series of three immunizing injections is recommended. This series should be initiated as early as possible so that at least two doses are taken prior to departure which will provide partial protection. The third shot should be taken five months after the second dose and may be given after returning home to achieve full, long-lasting immunity. An accelerated schedule can also be used as an alternative.

HIV/AIDS and Blood Supplies

HIV/AIDS is a concern worldwide. The HIV virus is transmitted by way of bodily fluids from an infected person. HIV is spread mainly by having anal or vaginal sex or sharing drug injection equipment with a person who has HIV. AIDS is an acquired immune deficiency that can result in life-threatening infections and is the most advanced stage of the HIV infection. It is the student's responsibility to protect him /herself from acquiring the disease through sexual transmission. Students anticipating even the possibility of sexual activity are strongly urged to bring their own condom supply. Other potential routes of infected blood transmission such as tattooing, body piercing and needle sharing must be strictly avoided.

With regard to blood transfusions, our in-country partners have identified hospitals, through consultation with International SOS where safe blood is available. In a life-threatening situation, the risks versus benefits of an emergency blood transfusion must be examined carefully and a decision made based on the best information available at the time.

ENVIRONMENTAL HEALTH

The Experiment Ecuador program involves active, outdoor elements and accompanying environmental health challenges. Proactive self-care and awareness can mitigate health risks from environmental factors.



Altitude

Quito is over 9000 ft. above sea level and many points you visit are higher. Even healthy, athletic individuals may become ill at altitudes over 10,000 ft. Common symptoms are unbearable headache and severe shortness of breath out of proportion to the mild fatigue most people experience while becoming acclimatized. Ascending gradually and resting during the first 12-24 hours can minimize the risk of altitude sickness. You may also wish to consult your health care provider about obtaining some acetazolamide (Diamox). Note that this is contra-indicated for those allergic to sulfa drugs and that this possibility should be discussed with your health care provider. Also note that alcohol and sedatives may have greater effect at high altitudes.

Any symptoms of severe altitude illness should result in *immediate* descent. Individuals with chronic heart and lung disorders, such as asthma, and any other preexisting medical

condition including sickle cell or diabetes should consult a health care provider before traveling to high altitudes. If your health care provider has given approval for high altitude travel, do let us know about the condition so that we can advise the Group Leaders and our local health care providers accordingly. Bring full medical notes with you to help local health care providers in case of need.

Dehydration

Dehydration occurs when the body is losing fluid faster than it can be replaced. This can be extreme in cases of diarrhea or vomiting, or gradual in cases of exertion without adequate fluid intake. Experimenters should drink safe water or other safe beverages regularly and should avoid excessive sugary or caffeinated beverages as these can increase fluid loss. Chugging water bottles or beverages should also be avoided, as this can rapidly change the electrolyte balance in the body, causing additional problems. Consistent fluid consumption in small sips is best.

Sun Exposure

Experimenters spend a great deal of time outside and are susceptible to sunburn. Coverage with clothing and appropriate sunscreen (SPF 30+) is the best way to protect skin and prevent burns. Please consult your Experiment packing list for clothing and sunscreen recommendations.

GENERAL HEALTH & WELLNESS

Taking good care of your health while traveling is important for getting the most out of your Experiment program:

- Practice good hygiene
- Get plenty of sleep
- Eat regular, balanced meals
- Reach out to your group leader if you feel unwell at any time

VACCINATIONS FOR ECUADOR

For current travel vaccination recommendations for Ecuador, please reference:

- [The CDC travel site for Ecuador](#)
- The Experiment's ISOS Member Portal and Pre-

Travel Support, instructions for logging into the ISOS Member Portal can be found on the [Pre-Departure page](#).

- Please also reference The Experiment Guide to Travel Vaccinations and Medications for additional information and answers to frequently asked questions about vaccinations and medications.

Please note that the Guide to Travel Vaccinations and Medications is a general resource for all Experiment programs and is designed to complement the recommendations of the CDC and ISOS, as well as the information provided here.

Please consult your healthcare provider when considering travel vaccinations or medications.

The following vaccine is REQUIRED for participation in program:

- **COVID 19:** Immunity is provided against COVID 19 disease two weeks after being fully vaccinated.

The following vaccinations are RECOMMENDED for participation in all Experiment programs:

- **MMR (measles, mumps, rubella):** Two doses of MMR or individual vaccination against measles, mumps, and rubella are required. The MMRV combination vaccine is acceptable for both MMR and Varicella requirements.
- **Varicella (chicken pox):** Two doses of the varicella vaccine or history of chicken pox are required. The MMRV combination vaccine is acceptable for both MMR and Varicella requirements.
- **Tetanus, diphtheria, pertussis:** The primary child series and a current booster are required. Boosters (Td or Tdap) are effective for 10 years.

Enjoy your trip! Please note that these robust guidelines are intended to help ensure that you have a healthy and memorable Experiment to Ecuador.