## U.S. Army Center for Health Promotion and Preventive Medicine

# A SOLDIER'S GUIDE TO STAYING HEALTHY IN COLUMBIA

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#### INTRODUCTION

This country-specific guide should be used in conjunction with <u>GTA 08-05-062</u>, <u>*Guide to*</u> <u>*Staying Healthy*</u>, and is intended to provide information that can help reduce your risk of Disease and Non-battle Injuries (DNBI) when deployed. This health threat and countermeasure information is based on the most current data available from U.S. Department of Defense medical agencies at the time of production. In addition to the information in this guide, you should also receive force health protection, health threat, and preventive medicine countermeasures training/briefings prior to and, as required, throughout the length of your deployment.

#### **COLOMBIA OVERVIEW**

<u>Colombia</u> is located in the extreme northwest of South America and is the only country on the continent to have both Atlantic and Pacific coastlines. Colombia also includes a number of small islands in both the Caribbean Sea and the Pacific Ocean.

The country's mainland is divided into four regions: the Caribbean/Atlantic Lowlands, the Pacific Lowlands, the Andes Mountains, and the Eastern Plains. The Caribbean/Atlantic Lowlands, roughly the shape of a triangle, consist of plains that extend northeast from the Panama border and contain swamps, hidden streams, and shallow lakes that support plantations, small farms, and ranches. The Pacific Lowlands consist of jungles, swamps, and a low mountain range (less than 1,000 feet) along the northern coast. South of the lowland regions are the Andes Mountains. Two ranges run parallel to the Pacific coast with mountain peaks of nearly 19,000 feet that are snow-capped year-round. Low intensity earthquakes and active volcanoes are common. The more inland mountain range has elevations less than 10,000 feet and consists of elevated basins and plateaus. Columbia's main area of commerce and capital city are in this area. The Eastern Plains region is east of the Andes and consists of plains in the north and tropical rain forests in the south. The borders of Colombia include Venezuela in the east; Brazil, Peru, and Ecuador in the south; the Pacific Ocean and Panama in the west; and the Atlantic Ocean in the north. The elevation ranges from sea level along the Pacific Ocean to just under 19,000 feet in the Andes. Below 3.000 feet, the climate is largely tropical with year-round highs and lows of 100° F and 65° F, respectively. Temperatures become milder as elevation increases; Bogota, in the Andean Highlands, has year-round highs and lows of 68° F and 47° F, respectively. Two rainy seasons, March through May and October through November, account for 60 percent of the total rainfall, which averages 42 inches per year.

#### **COLOMBIA RISK ASSESSMENT**

Based on a combination of all major infectious diseases that occur in a country, an <u>overall country risk level</u> is assigned as low, intermediate, high, or highest risk. Colombia is HIGH RISK for infectious diseases. Diseases of military importance to forces deployed to Colombia include <u>hepatitis A</u>, <u>typhoid fever</u>, and diarrheal diseases, all acquired by consuming contaminated food, water, and dairy products; vector-borne diseases such as <u>dengue fever</u>, <u>malaria</u>, and <u>leishmaniasis</u>, which are acquired through the bites of mosquitoes and sand flies; <u>leptospirosis</u> from swimming, wading, or other skin contact with contaminated water; <u>rabies</u> from animal contact; and <u>sexually</u> <u>transmitted diseases</u>. Environmental factors also pose a significant health risk to deployed forces and include sewage and agricultural contamination of water and food supplies and high altitude illness.

#### INCREASED REGIONAL DISEASE THREATS

Increased vector-borne disease threats include dengue fever and malaria. Both are transmitted year-round with increased risk during the rainy season. You are at especially high risk for malaria in rural and jungle areas. Malaria-free areas include the Bogota vicinity, elevations above 9,000 feet, and the islands of San Andres and Providencia.

Leishmaniasis occurs year-round in many jungle and forested highland areas. You are at especially high risk in rural areas below 5,000 feet or when exposed to heavily infected sand fly populations.

Overuse of fertilizers designed to enhance illegal drug cultivation and heavy use of insecticides contribute to water contamination. Crude oil spills and mining operations also contribute to water contamination.

#### FIELD SANITATION TEAM

Each company-sized unit has a Field Sanitation Team (FST) whose members are trained (40-hour course) and fully equipped IAW <u>AR 40-5</u>, <u>FM 4-25.12</u>, and <u>FORSCOM</u> <u>REG 700-2</u>. Know who the members of your FST are, and know how they can assist in preventing medical threats to your health. Become familiar with FST equipment and training.

#### TOXIC INDUSTRIAL CHEMICALS AND MATERIALS

When deployed, you may face health risks from industrial chemicals and materials as a result of activities by terrorists or warring parties; accidents related to improper design, maintenance, or operation of indigenous industrial facilities; inadvertent exposure to toxic waste materials in the environment; or improper handling or disposal of hazardous material with which our own forces deploy. The degree of health risks depends upon many parameters. Consult your medical authority for additional information.

#### **VECTOR-BORNE DISEASES**

Several vector-borne diseases are present in Columbia. They include <u>malaria</u> and <u>dengue fever</u> from mosquitoes and <u>leishmaniasis</u> from sand flies. There are many other diseases spread by mosquitoes, midges, black flies, and kissing bugs. Your local medical authority will determine if these diseases or other vector-borne diseases are a threat in your specific location and provide appropriate countermeasures.

• Take your malaria prevention pills when directed to do so. This is CRITICAL. Normally, you will begin taking medication prior to arriving in the area, while in the area, and after returning home.

• Use the <u>DOD Insect Repellent System</u> detailed in <u>GTA 08-05-062</u> to reduce your risk of acquiring a vector-borne disease. Wear permethrin-treated uniforms with

trousers tucked into boots, sleeves rolled down, and undershirt tucked into trousers. Wear DEET on exposed skin.

- When deployed to this region, <u>sleep under a permethrin-treated bed net</u> to repel insects and further reduce risks of vector-borne diseases. Many insects in this region feed during the night, including mosquitoes that transmit malaria.
- When using both DEET and sunscreen products, apply sunscreen to the skin first so it does not interfere with the effectiveness of the DEET. After 30 minutes to an hour, apply the DEET. This allows the sunscreen to penetrate and bind to the skin first.

## FOOD-BORNE AND WATER-BORNE DISEASES

The diseases of greatest risk, in both rural and urban areas, are bacterial and protozoal diarrhea, hepatitis A and typhoid fever, associated with contaminated food, water, and ice. Sanitation varies with location, but is typically well below U.S. standards. Do not consume any food, water, or beverages (to include bottled water) that have not been approved by the U.S. military. Assume all non-approved food, ice, and water is contaminated. Water and food items available in this region, including dairy products, fish, fruits, and vegetables, may contain unsafe levels of pesticides, chemical fertilizers, bacteria, and viruses. Contamination with human or animal waste is widespread. Even a one-time consumption of these foods or water may cause severe illness. See <u>GTA</u> <u>08-05-062</u> for appropriate countermeasures.

## HOT AND COLD WEATHER INJURIES

Temperature extremes in this region may impact military operations. Heat injuries are possible, especially in individuals not acclimatized to warmer temperatures. Heat injury is most likely to occur during the early phase of deployment; acclimatization is critical. Cold injuries are a serious threat with the effects of cold weather being more severe in high mountainous areas due to reduced oxygen and lower air pressure. When deploying to this region, check with your unit on the requirement for packing the extended cold weather clothing system. See <u>GTA 08-05-062</u> for appropriate countermeasures.

## **HIGH ELEVATIONS**

High altitude illness is a major threat in the western region of Columbia. Even the urban areas such as Bogota, the capital city, have an elevation of 8,600 feet. High altitude or mountain illness can kill. Military operations occurring at elevations over 6,000 feet can seriously affect unit and individual effectiveness. Serious illness or death can result if you ascend rapidly without allowing for acclimatization. Remain well hydrated; individual water requirements are greater at higher altitudes.

• When deployed to high mountain areas, be observant of the common symptoms of mountain sickness: headache, nausea, vomiting, dizziness, fatigue, irritability, and coughing. Seek medical attention immediately if you experience any of these symptoms.

• Pyridostigmine bromide tablets may increase the chance of dizziness or fainting during the first 24 hours at high altitude if you are not acclimatized.

• Lower oxygen levels at high altitudes ("thin air") combined with the heavier work requirements when wearing mission-oriented protective posture (MOPP) gear can increase your risk of high altitude illnesses. When wearing MOPP gear at higher altitudes, you may require more time and concentration to perform assigned tasks.

• For appropriate countermeasures during high altitude operations, see <u>GTA 08-05-</u> 062 and <u>GTA 08-05-060</u>, <u>A Soldier's Guide to Staying Healthy at High Elevations</u>.

## HAZARDOUS ANIMALS AND PLANTS

• Many species of highly poisonous snakes, which are well camouflaged and very aggressive, live in the region. Consider any snake encountered as poisonous, and do not handle. Seek immediate medical attention if bitten; untreated snakebites may cause serious illness or death within 1 hour.

• Several species of spiders and scorpions, some with potentially fatal venom, are present throughout the region. If possible, avoid sleeping on the ground. Shake out boots, bedding, and clothing prior to use, and never walk barefoot. If bitten or stung, seek medical attention immediately.

• Some regional plants have thorns, stinging hairs, or toxic resins that may puncture the skin or introduce poison into the skin causing skin irritation, rashes or infections. Avoid skin contact with plants when tactically feasible.

• Contact with the smoke from the burning of these plants can also cause skin rashes and damage to your lungs.

• Clean your clothing after contact with harmful plants. Decontaminate clothing by washing with soap and water.

• Some regional plants may cause systemic poisoning if leaves, berries, flowers, or other plant parts are chewed or swallowed. Symptoms include dizziness, vomiting, irregular heartbeat, and delirium or hallucinations.

## SEXUALLY TRANSMITTED DISEASES

<u>Sexually transmitted diseases</u> are highly prevalent in this region. Gonorrhea, chlamydia, and other infections are common, and may affect a high percentage of personnel who have sexual contact. Human immunodeficiency virus (HIV) and hepatitis B occur throughout the region. Though the immediate impact of HIV and hepatitis B on an operation is limited, the long-term impact on your individual health is substantial. See <u>GTA 08-05-062</u> for appropriate countermeasures.

#### **HEARING PROTECTION**

It is essential that you use properly fitted hearing protection during military operations. Exposure to high-intensity noise may cause hearing loss that can adversely affect your combat effectiveness and individual readiness. Good hearing is essential to mission success. If you are a dismounted soldier, the <u>Combat Arms Earplug</u> (NSN 6515-01-466-2710) will protect you from the impact noise of weapons fire while only slightly

interfering with voice communications and detection of combat sounds such as vehicle noise, footfalls in leaves, and the closing of a rifle bolt. While not as effective as the Combat Arms Earplug in preserving your ability to hear important mission-related sounds, noise muffs or standard earplugs are very effective at preventing noise-induced injury. If you are a member of vehicle or helicopter crews, your combat vehicle crew or aircrew helmets have built-in hearing protectors.

### ORAL HEALTH

Dental disease is a common problem during deployments due to the challenge of maintaining good oral hygiene. You should deploy with toothbrush, dental floss, and fluoride toothpaste. Daily flossing and twice daily brushing of teeth is the best way to ensure prevention of periodontal disease and to decrease your risk of problems such as trench mouth and tooth decay. In difficult tactical environments, teeth should be brushed at least once a day. Seek medical attention immediately at the onset of any dental problems.

### **SKIN DISEASES**

Skin irritations and infections, such as athlete's foot and ringworm, are common medical threats during any deployment and are commonly caused by fungi. The best prevention is to maintain clean, dry skin. See <u>GTA 08-05-062</u> for additional countermeasure information.

## **PRE-DEPLOYMENT HEALTH INFORMATION**

• <u>Complete the Pre-Deployment Health Assessment (DD FORM 2795)</u> to assess your state of health before deployment and to assist health care providers in identifying your medical needs and providing present and future medical care to you.

• You will not have access to your health care record during the deployment. The Adult Preventive and Chronic Care Flowsheet (<u>DD FORM 2766</u>) will be used as your deployment health record. This document will include information on all your immunizations, any medications you are currently taking, and any ongoing medical problems that you may have. When you go through readiness processing, ensure that all appropriate information is documented on your DD FORM 2766. When you return home, this information will be placed in your regular health record.

## INFORMATION ABOUT YOUR HEALTH CARE WHILE DEPLOYED

• It is important that you know where to seek health care while deployed. This may or may not be through the same channels as your home station. Ask your chain of command for more information.

• While deployed, you must maintain your health and seek care whenever an illness or injury threatens your ability to complete your tasks. Your unit is depending on you. It is always better to seek care early so that your problems can be documented appropriately and taken care of immediately.

#### POST-DEPLOYMENT HEALTH INFORMATION

• <u>Complete the Post-Deployment Health Assessment (DD FORM 2796)</u> to assess

your state of health after deployment and to assist health care providers in identifying your medical needs and providing present and future medical care to you.

• If you become sick after you return home, tell your physician that you were deployed.

• Complete malaria medications as directed, and receive follow-on medical care/tests as directed.

#### Contact your Preventive Medicine or Medical Support Unit for more information.



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